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# Production of a Film on Conservation Education

Lesley Woodfin

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# to the woods

lesley woodfin's thesis film screening

a regional arborvitae

color/sound 20 min.

june 11, 1976 7 pm

Dedicated  
to my Husband  
who has managed  
somehow to live  
through this with me

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## INTRODUCTION

After reading Berry Commoner's book, The Closing Circle, I became very interested in trying to relate my thesis project to conservation education as a tool to further the awareness of ecology. A series of five short films using trees to express a variety of ecologically-oriented activities seemed appropriate. Logistically they offered a few other things. It was decided that my thesis would require the completion of a minimum of two of the proposed films, therefore, I could fulfill the requirement even if I wasn't able to afford finishing all five films. I could also choose the two that I could produce the quickest. Each film used a different filmic technique, which meant that no matter which films were produced, they would reveal diversity in my technical ability. But most important was the monetary question. I had to look for funding, which required that I reach the widest range of possible sponsors. The opportunity to offer a variety of topics broadened the range of sponsorship possibility in that someone might find at least one film with which their own purposes would be compatible.

Although I had limited myself to conservation education, the scope of appeal of my proposed films enabled me to look for funding from groups and organizations so diverse as to include garden clubs, camping associations, chemical societies, farm bureaus and forestry associations, to name a few. I found their names and addresses in the Conservation Directory of 1973 published by the National Wildlife Federation, 1412 - 16th Street, N.W., Washington, D.C. 20036.

After researching and writing the proposals for each of the five films (see Appendix I), I sent out approximately 175 copies of an introductory letter, the body of which is as follows:

I am a 29-year-old energetic filmmaker. I have completed my coursework toward the degree of Master of Fine Arts in Cinematography at the Rochester Institute of Technology. I plan to complete my film thesis during the coming year. I seek financial support and in return I can offer you valuable assistance and professional service.

The thesis which I propose is a series of five films concerning Trees. The films each develop different and unrelated aspects of Trees. They are as follows:

1. "Wind and Trees": a 5-10 min. 16mm color/sound film without dialogue, presenting a "natural ballet" of trees interacting with the wind--primarily an aesthetic presentation.
2. "The Forester and Ecology": a 5-10 min. color or B/W film in the style of "documentary monologue". The camera will follow a professional forester in his work, witnessing, among other things, the forester's description and explanation of local ecological issues which arise in his daily routine.
3. "Nutrient Cycle": a 5-10 min. 16mm color/sound film, probably with dialogue, using trees as an example to develop the notion that all of nature revolves around the basic nutrient cycles. Considerable cine-photomicrography will be used (i.e., soil micro-organisms and leaf bacteria).
4. "Intuitive Conservation": a 5-10 min. color/sound film incorporating such technical effects as high contrast printing and roto-scope animation to illustrate, in an abstract manner, the sensitive approach which the American Indian employed toward trees and their environment.
5. "Maple Sugaring": a 5-10 min. color/sound film depicting realistically the various steps in maple sugaring.

I have prepared complete descriptive proposals for each of the films listed. If you have interest in lending any degree of financial support to any one of these efforts in exchange for some rights in the finished products, I hope to hear from you. I will quickly respond by sending a proposal describing any or all of the films. I will be happy to discuss changes in any of the films to suit our mutual interest.

My resume is enclosed. I'll be happy to furnish references upon request and would like, as well, to meet with you personally to show you my portfolio and samples of my filmmaking.

Yours Very Truly,

I received about ten replies asking to see the proposals. I sent out the ten sets and received one letter in return requesting an interview--one out of 176 inquiries. In retrospect, I would consider the odds reasonable. I only required one sponsor. The following letter to my thesis board explains the events that followed.

To: Thesis Board

#### RATIONALE FOR A NEW THESIS PROPOSAL

When I last wrote my thesis board, December 1972, I planned to find financial support for my thesis films by the spring of 1973. By that time the five film proposals, of which two were to be the thesis, would be finished and ready for seeking financial aid. Unfortunately, this situation did not materialize until the end of the spring quarter, about June 15, 1973.

It was my feeling that my proposed films on trees, as a package or unit, would be an ideal vehicle to promote conservation education. In each film I hoped to instill in my audience a feeling for trees as nature. Hopefully this would promote a new awareness or motivation to action not otherwise experienced. The value of this series of films would be lost, however, if only two are produced. The intention was for all five films to be used creatively in the classroom as a unit and only in this way would my purpose in making these films as an educational tool be fulfilled. The

prospect of only producing two would deny, to some degree, that personal satisfaction of fulfillment of a complete project. This would have been my only disappointment with the proposed thesis.

Around June 15, approximately 175 letters were sent out to various foundations or conservation organizations that I felt might be interested in the proposed series of films. (A copy of the letter is attached.) There were about ten replies that either asked to see the proposals or expressed enough interest to warrant sending them. The Hayes Regional Arboretum of Richmond, Indiana, wrote back asking for an interview with me. On August 20th I went to Richmond, Indiana, to meet the staff of the Arboretum, taking with me more copies of the proposals and examples of my film work. During my meeting with them it was determined that the scope of one or two of my proposed films was too narrow to fill the spectrum of the Arboretum's interest. They proposed that I make a film on the philosophy and functions of their Arboretum. Not only does such a production fulfill my own desire to be of service, but it also fulfills the broad purpose of my previous proposals: to use trees to promote conservation education. Unlike the five proposed films, the newly proposed film offers the personal fulfillment of a complete project.

I therefore request to substitute this new project for two of the previously proposed films in order to fulfill my thesis requirements. The previously proposed films of five-ten minutes would be adequately replaced by the new film as far as screen time is concerned. The new film is planned as a half-hour film. It will take approximately twelve months from the first shooting session in October. Shooting will be done seasonally so that editing will not start until after the summer 1974 shooting is finished. The film will be finished toward the end of Fall, 1974

The following is the new proposal for my thesis.

Title Page

Production of a  
Film on Conservation Education

Thesis Proposal for the Master of Fine Arts Degree

School of Photographic Arts and Sciences  
College of Graphic Arts and Photography  
Rochester Institute of Technology

Submitted by: Lesley P. Woodfin

Advisors: M. Renalls (Chairman) Asst. Prof.  
Filmmaking and TV S.P.A.S.  
N. Croom - member - Professor S.P.A.S.  
F. Meyer - member - Professor and  
Chairman of Graduate Program in Fine Art

Approved by Graduate Committee:      Date: \_\_\_\_\_

Chairman: \_\_\_\_\_

### Purpose of the Thesis

The purpose of this thesis is to produce a half-hour film on the Hayes Regional Arboretum in Richmond, Indiana. The main interest or underlying theme is Man's relationship to trees, requiring his promotion of conservation and education.

The uniqueness of this particular Arboretum, its functions and how its formula for success can be duplicated elsewhere will be used as a vehicle for the conveyance of my main theme.

### Scope of the Thesis

"Hayes Regional Arboretum, 300 acres of rolling woodland and open area, is located along US Highway 40 at the east edge of Richmond, Indiana. The Arboretum is owned and operated by the Stanley W. Hayes Research Foundation, a non-profit corporation formed primarily to preserve the Arboretum and to enable it to serve the public. Included in the physical facilities used by the visitors are a large rustic nature center, the nature center annex, a field laboratory, and the administration building. Hayes House, the former home of Stanley W. Hayes, is now open to overnight guests of the Arboretum. The staff consists of ten full-time employees, a few who work part-time, and senior high school and college students who form the summer staff."

Their extensive services and programs for the community range from Sunday nature rambles for the whole family to sharing their facilities with local organizations such as the photo club or the regional Audubon



Society. There are many services for children. Resident naturalists provide extensive information to school groups. Children are also offered a whole summer of classes in many areas of natural science from gardening to rock formations.

The most salient feature of a Regional Arboretum is that its primary interest is in the plants of the local region. This is important because it makes the possibilities of a regional-type arboretum feasible for any area to initiate. I was impressed with the similarity of the Arboretum's aims and my own convictions about conservation education. I spent two days at the Arboretum, staying in Hayes House, and after learning as much as possible about its functions, I met with the staff to formulate the directions of the film that they wanted.

As a filmmaker, I consider my job to be twofold. First, as a specialist/authority in interpreting information on a film. Working with tree experts, I would function as a layman and acquire the pertinent information. It would be my place to act as the link between information and audience; condensing and organizing and presenting. With the facts in order, the second function would be to find the best film technique by which to communicate. Production therefore involves a collaboration between the expert on trees and me, as the expert on communication in the film medium.

It was my interest that the Arboretum's film do more than just promote the Arboretum. I felt that it supported their aims better to make this a film to serve the public interest first, and to promote, second. It was therefore decided that the film would be used to promote the idea of a Regional Arboretum dedicated to public service. Further decisions included seasonal shooting with an open script, documenting the various

functions of the Arboretum, and interviews with the staff. The content and organization of the film will develop over the twelve months and take final shape at the editing stage.

### Technique

It is not my intention to adopt the traditional straight-forward, dry-as-dust attitude toward the production technique of educational material. It is my belief that education should be made as enjoyable an experience as possible. To this end the form and content of my film will be geared towards the creation of a filmic experience that will motivate as well as educate. Communication is the most important element and the vehicle by which entertainment, education and motivation can happen all together. It is the development of a filmic language in raw communication that I intend to explore.

### Procedures

This film will be a 16mm color film with sound. The sound will be lip sync and/or sound-over. It will be a half-hour long, possibly for use on television.

Preproduction will include screening films on arboretums and perusing the available pertinent literature.

Production will commence with researching the appropriate equipment, etc., necessary for this production. With the help of the sponsor, the budget limitations will be set up. This will include special trips to decide upon the appropriate equipment, the ordering of film, and contacting laboratories.

The thesis report will consist of an edited diary of the entire production experience and a personal evaluation.

The film will take approximately twelve months from the first shooting session in October. Shooting will take place seasonally so that editing will not start until after the Summer 1974 shooting is finished. The film will be finished towards the end of Fall, 1974.

The following people have agreed to serve on my thesis board:

Martin Rennals	Advisor
Neil Croom	
Fred Meyer	

#### Exposition

In late August and September of 1973, soon after my initial meeting with the staff of the Arboretum, I began to think about whether or not I should have a contract. To me, this would be a written document between myself and Mr. Hayes, president of the Foundation which administers the Arboretum, stating what we expected from each other. I suggested this, maybe, once over the phone to Mr. Hayes, who seemed agreeable but in no rush to make things legal. I asked my brother, a lawyer, how to go about it, and he suggested that it might not be wise to insist: that some people would rather work without a formal written agreement. I began to feel that this was the road to take in this particular case and that I should consider the paragraphs that Mr. Hayes had written on a copy of my first bill (see Appendix II) sufficient as far as he was concerned. For my part I felt that I, too, should produce some documentation to clarify and cover my side. I decided that I would present it at a staff meeting as a proposal for

the film and would include most of the areas to be covered in the film. The staff and I would discuss it and come to some common agreement.

The proposal that I wrote for the Arboretum staff in many ways fulfills the same function as the thesis proposal, but to a different audience. I had two groups to be accountable to. My thesis board and, probably more importantly in this particular situation, the client, Hayes Regional Arboretum. Both would eventually have to be satisfied before my project was over. Therefore, both required a proposal that I could refer to.

The proposal for the film on the Hayes Regional Arboretum, which appears on the following pages and which I submitted to the Arboretum staff in February of 1974, became my contract with the Arboretum, stating what I conceived as the assignment.

In this way there was enough documentation on both sides to be considered legal in case conflict arose. I would not use this method with all clients. The important part is that there is some sort of contractual documentation between the client and the filmmaker.

When I submitted the proposal to the Arboretum staff, we discussed it and were in agreement. The proposal follows:

Proposal for a Film on  
The Hayes Regional Arboretum

Theme:

The concept of the regional Arboretum is unique in that it offers a community a way of preserving its heritage, learning about the natural sciences and enhancing its environment, all through a basic plan of action that contains no elaborate expenses toward the collection of expensive,

exotic plants, but limited expenses toward enlightenment through the collection of native plants.

Objective:

This film should provide the motivation necessary to start regional arboreta in other areas of the nation. Using Hayes Regional Arboretum as an example, the film should indirectly offer some guidelines to its target audience for starting such a project.

Target Audience:

If the film is to help produce regional arboreta it should direct its communication to the average American citizen, possibly married, with children. So much of this concept is of benefit to the children of the land that it is their parents who would be influential in starting and maintaining interest in the arboretum. It is my feeling that the questions Mr. Average American family might ask will give us the broad answers this film should deal with. Each family also offers a regenerating interest in such an arboretum project as the children enter the schools, grow, and leave in a continuous flow.

Content:

Here is where we must all agree.....

The film should contain examples of as many things that go on at Hayes Regional Arboretum as it can without becoming too busy, chopped up, and disorganized. Since the objective is to motivate, the material must be chosen with sensitivity and must develop interest and motive in the target audience, indirectly giving them cause for action.

The film should say:

1. Trees are a perfect background and way to learn about the natural sciences which we are now beginning to understand as the most important knowledge for all humanity to relate to.
2. The idea of a regional arboretum fulfills so many of our needs - heritage, enlightenment, community development - in such a way as to consider them in the form most appropriate to the particular community in question.
3. It is possible to see how well the arboretum fulfills these needs by seeing examples of all the activities that go on there and all the people involved.
4. One can even see how other arboreta of the regional type could start from such simple beginnings so easily because there is little expense involved in gathering plants that already grow in the region naturally. The people at Hayes Arboretum can offer so much of their experience to those wishing to start their own.
5. It is also possible through the examples shown that one can find ways of interesting almost every manner of person that lives in any given region in such a project. The variety of activities seems endless. Involvement can even be indirectly the result of people passing on information learned at the arboretum.
6. This is an arboretum - serving both as a place to preserve the region's unique eco-system and as a working arboretum or nature center with programs for environmental education and enlightenment. It preserves wildlife by the way it uses it - sensitively, as a showcase for the benefit of the people it serves.
7. One of its values to the community is to add to the cultural climate of the area.
8. The arboretum provides a place for people near or far to seek advice and information about the environment.

#### Possible Treatment:

The film opens on the arboretum grounds. A slow fade-in on a group of children and a naturalist in one of the summer classes. During the ensuing action, the face of one child is picked out of the crowd and we are witness to a special moment in the child's life as a new awareness of the



natural world is awakened in the child's face. A voice takes us swiftly away to another spot as a group of teachers is being prepared to teach about nature in a workshop. For the second time we are witness to another special personal moment as an old fear of insects is transformed into admiration of one of nature's miracles. Again sound over as a voice snatches us off to yet a third area of the arboretum as we listen to a naturalist leading a group down one of the Arboretum trails. Here again we are witness to a touching scene between a father and daughter as they discover a mutual interest in the texture variety of tree trunks. The momentum builds as the scene dissolves to a montage of pure nature that expresses the many moods of the arboretum by itself - perhaps, at first, still and mysterious, then windy and moody, then as it breaks into the bloom of spring. A slow dissolve changes our direction and we find ourselves in the Arboretum garden following two members of the staff as they look over the grounds. We break into their conversation in time to hear one of them praising the foresight of S.W. Hayes in developing this land as a regional arboretum. Their discussion becomes sound over to visual examples of how this place adds to the heritage of the region and preserves its unique eco-system. But soon this dissolves and we find ourselves sharing a conversation that another staff member is having over the phone with a local citizen explaining to him the problems in planting a particular kind of tree in his backyard. Another slow dissolve as the conversation continues and it explains the action we see before us as a part of research into that particular tree. We see a naturalist measuring some young trees in what appears to be someone's backyard, possibly in the middle of a winter storm. As this conversation ends, the scene

dissolves to another conversation with the mayor of the city, who in essence is offering a testimonial about the role the arboretum has played in "Operation Green Street" and what a positive effect it has had on the community as a whole. Part of this conversation accompanies some pictures that illustrate even more of the variety of ways that the arboretum has served the community and its variety of inhabitants: the college class, the elderly couple walking one of the many paths, the family of young children driving down the tour route, the adult classes, the club meetings and varied facilities, and ends with the serenity of a Quaker meeting in spring or early summer in the woodland chapel.

An extremely slow zoom back and we find ourselves high above the trees and gliding slowly away as we get a birdseye look at the arboretum grounds altogether. As this happens we are offered a closing and totally engulfing statement by S.W. Hayes and then an invitation to write to Hayes Arboretum to find out more about starting one's own regional arboretum.

To continue:

Before the meeting of accordance took place, I was already five months into production, and quite a bit of research and activity had already taken place. The difference in the content of the Arboretum proposal versus the content of the thesis proposal was the cause of the delay. The thesis proposal had to describe primarily how the project would be done, whereas the Arboretum proposal had to describe what the project would include. The latter required further research, which had to be carried on after production had commenced in order that no seasonal

shooting be postponed. When the staff and I agreed to make the film in August, 1973, we already seemed to be in complete agreement on the content. Therefore, I felt I could take my time writing the proposal for them. It was decided in August that the fall shooting session would be in October, and would be the documentation of the various events that go on in that month on Arboretum grounds. Therefore, in preparation for the whole project, which included the Arboretum proposal, and the fall shooting, I began two activities. I looked into the production costs for the film, which included ordering equipment to use in October, and I began to screen films on trees and other arboreta, in general pursuing information which seemed pertinent.

September 4, 1973 - excerpt from a letter from Mr. Hayes:

"We are all mightily impressed with your grasp of our situation and with your obvious competence and enthusiasm. We are looking forward to working with you."

October 10; October 16, 1973 SHOT FALL FOOTAGE (See Appendix III)

Each of the first three seasons, Fall, Winter, and Spring, were shot using similar procedures. The Summer session differed only in that there was very little sync recording done.

In each case I would arrive at the arboretum and I would get a calendar that listed the events for the week. I would then choose the ones to shoot, decide which would be silent and which would be sync sound, and then I would check out any locations that I thought would cause me problems. The day before shooting commenced, I would check out the camera and sound equipment with the soundman.

In most cases we would be on the location at least an hour before anyone else arrived to get everything ready to go.

For shooting outside, I would carry the camera magazines on my back in a small backpack, and batteries on my shoulder. The soundman would wear earphones and carry the tape recorder and mike. When I ran out of film, the soundman would get a fresh magazine out of my pack and I would exchange it for the used one, which would then be placed in the pack.

When we shot inside we just spread out more and didn't have to carry anything extra. Sometimes a mike would have to be planted on the set.

We shot with an Eclair ACL that had either a 12-120mm zoom lens or a 9-95mm zoom lens. The tape recorder was a Nagra IV with sync crystal. This meant that there were no lines between soundman and camera man, which was very helpful shooting a group of children on a trail. At first I would get an assortment of mikes-lavalier, omnidirectional, and cardioid. But later I found that a shotgun mike was far superior for use outside on the arboretum grounds.

November 10, 1973 - excerpt from letter I wrote to Mr. Charles McGraw,  
Director of the Arboretum

"In general the footage was fair. I have a feeling that this particular batch will be used more as fill-in rather than as major contributions, but that is yet to be decided. What it does do is help me plan shooting sessions more closely; for instance:

1. Any further school groups should be planned much more carefully. It will be necessary to pick the classes to shoot. Elaine and Don (staff naturalists) mentioned certain groups that were more prepared for the walks in the Arboretum.
2. I find that the fluorescent lights in each building will require further filtration to get the best color. The film that has been already shot will get color correction if used in the final cut, but to avoid more color correction, I will discuss the problem with experts at Kodak, and we will use the proper filtration in the future.
3. I will plan all events to be shot way in advance and therefore will most likely shoot fewer events, but more film of

each. This problem is posed by the documentary way in which the shooting is being done. Don and Elaine can testify to the problems of getting used to the camera. These are: in only having two film magazines as I did, the problems of possible losses either if I start shooting too soon (when people aren't used to the camera), or in shooting too late (when I have lost very fresh, unaware moments). Of course there is always the possibility of overshooting, but I feel that doubling the amount I shoot of certain events is still economical in the long run.

In the next few weeks I will sync up the lip sync footage shot so far, and will have a number of screenings with the three members of my thesis board who have, by the way, all accepted this project as my thesis. I am hoping to begin to assemble some sort of skeleton idea of a script that will aid me in determining the rest of the events to be shot. It will be easier at that point to decide what would be best shot during which season and then proceed. I will send you further reports as things progress. With my lack of writing talent, you can expect them to be sketchy and a little hard to understand. Your questions and suggestions in the way of clarifying and contributing will be more than appreciated."

The above related three of the technical problems that I had while shooting this film. All of them were solved over time rather than being corrected before the next shooting session, which took place in February. They include: inability to plan in advance the events for any of the seasons and, inability to solve the color problem until spring. The solution of the color problem presented itself during the winter session. This was too late, however, to get good quality footage on what I considered to be one of the most important events in the film - namely the evening meeting in the nature center with the interviews. I later discovered that another event which had been shot during the winter session with high speed ektachrome (7241), with no filtration and with only available light, came out very well. I continued to use that film in that manner when shooting inside the arboretum buildings.

The third problem refers to the quantity of footage shot at each event. The amount never really changed. In fact, in some cases, less was

shot, indicating less time in which to document an event. The real problem was not how much time I would have to shoot, but what I would do with the time I had. A feeling of hysteria overtook me whenever I got behind the camera, trying to be everywhere at once before my film ran out. I had a very bad tendency to fly around with the camera looking for those precious moments referred to in the beginning of the "Possible Treatment" section of the proposal to the arboretum. By the third shooting session in the spring I had finally learned to slow down and control that urge. The results were much better. This was also helped by a change in my camera. I had been using an Elcair ACL, a nice light camera for documentary shooting. It was equipped with a 12-120mm zoom for fall and winter sessions, but in the spring I got it with a 9-95mm zoom. This slight weight difference changed the whole balance of the camera and made a great deal of difference in the way I could handle it. Much later, in post-production, I experienced the problem of trying to edit the hysteria out of the earlier fall and winter footage.

November 17, 1973 - excerpt from Mr. McGraw's letter:

"My experience has been similar to yours in trying to catch naturalists and students at the right moment--this is something we will work on. Perhaps summer class activities would be better. In most cases naturalists and students are together daily for a period of two weeks. This would make it possible for us to know which students might be most photogenic and the students would have more time to get used to the camera. Some rehearsing might be possible."

I planned on shooting the summer classes for the rest of the year. When summer came along most of the film had already taken shape and the summer classes were not used in quite the same way. I only shot them silent, as fill-in. The classes I did shoot, however, came out more



relaxed. The potential was there.

November 10, 1973 - excerpt from letter I wrote to Mr. Hayes:

"The editing of the rushes I propose to bill as follows:

1. A report of the editing progress along with
2. A bill in days of my time (including expenses).

Will this be acceptable?.....

I would also appreciate knowing if you have any questions about my expenditures or if you want to make any changes or set any limits to certain things. I work much better knowing what my limitations are, and working within them, although I must tell you how gratifying it is to have as free a hand as you have given me."

November 21, 1973 - excerpt from Mr. Hayes' letter

"What I am eager to wind up with, of course, is a film which will incorporate the technical brilliance and high imagination which were so evident in the examples you ran for us in the Nature Center Annex--yet which will curtsy to conventional communications techniques with a now-and-again reminder that 'anyone can do it--and it is worthwhile.' (As I think back on it, I really got some of that feeling from the Raku film ((earlier film of mine)) - plus a hint of hankering to go out and get started. If we can do the same in the F'n-Arb Film, it will be great.)

Back to your letter of the 10th: your proposal for editing of the rushes seems suitable to me. You will recall that when you and I first discussed this endeavor, outside the Annex, we toted up the financial outgo of the foundation and came up with what you thought might be a maximum for the completed film of about \$8,000.00. This is the figure I have been carrying in the back of my mind; is it still valid as far as you can see?"

January 12, 1974 - I replied:

"I have finally finished this report and I now feel that includes everything. The first estimate of expenses that I gave you over the phone was for shooting the film, not for post-production. It was based on a limited knowledge of the subject in that investigation of the Arboretum had just begun. Now that I have looked into all aspects of the production and am beginning to structure the film, I am in a better position to give you a complete budget report

.....From the production breakdown sheets you can begin to understand why the industry usually quotes a film as costing an initial \$1,000.00 a minute. I'm hoping to make our film for at the most half of that. There are a few things that need further explanation before the budget estimate becomes clear:

As we have discussed, there will probably not be a narrator. The narration, if any, will be lifted from various conversations; hence, the quality of the sound must be extremely good. When we first spoke of the money it would take to shoot each session, I did not include a salary for a soundman because I was going to rely on a local person to assist me in that capacity. As pleased as I was with the work that Don and Debbie did, I am now convinced (since playing back the tapes) that sound is too important an element to leave to whoever is available. It requires someone qualified and available at all times. This could present a big budget problem at this point, but I think I have a solution. I have a friend in Chicago who is capable of filling my needs....."

In my report I go on to mention other subjects like the price of music, the cost of post-production (such as editing, which had not been included in our conversations up to this point), and that the budget did not incorporate multiple prints that might occur afterwards.

One of the learning points that came out in that letter was that at this particular time I began to realize that one does not shoot a film of this length alone. Not only is it important to have an equally-qualified soundman on a job like this, but it requires possibly a three-man crew to make sure that everything has been remembered and to cut down on technical failures. I then presented a draft of the estimated budget to Mr. Hayes (see Appendix IV) and finished my reply with:

"From what I can gather, it begins to look as if the winter shooting will be a fraction of what was shot in the fall. Once I have finished the expense estimate and have sent it off to you for your approval, I will concentrate on developing a script or structure from which to proceed. This in itself will begin to limit the amount of footage shot and will determine more precisely the areas of concentration."

How does one organize a large body of information in such a way that it can relate a motivating flow of ideas to a film audience about a singular concept - the regional arboretum? In this particular case, it was slow. I gathered all the literature that the arboretum had to hand

out. Some of it they had put together; there was the arboretum brochure, a composite pamphlet of newspaper clippings about the arboretum activities (see Appendix VI), and there were flyers that they received from other organizations to hand out to visitors. In each case it had something to do with how the arboretum functioned. There was a great deal of diversity in the material and in the activities that were described. It was up to me to bring some order and coherent flow of ideas to it all. The following gives a glimpse into some of the thought that went into that development.

January 15, 1974 - to either Mr. McGraw or Mr. Hayes:

"About the 'Arboretum Film.' As I mentioned on the phone, I am trying to develop some of the economic and worldly attractions of the regional arboretum concept.

I need your input into this area, because until it is developed, the movement of the film will remain too random and too scattered to commence further shooting.

I see the film beginning with basically visual examples of why this idea of a regional arboretum is important to the average family, which I perceive as the target audience. Through activities for his children, himself, and the family unit, 'Mr. Average Family' will discover why he and his family need a regional arboretum in their area. He is now interested in getting others of his community to start one with him.

But he is (half way through the film) in need of finding ways of getting others to join him in this effort. It is now up to the film to turn away from the individual and family unit as such, and offer 'Mr. Average Family' ways of interesting other elements of the community in his cause. With the knowledge that there are good reasons why he will receive positive reactions from community groups--our target audience will hopefully have the necessary motivation and optimism to at least write to Hayes Regional Arboretum for more information on how they can instigate such a project in their area.

Hopefully all of this will be done with more visual action than words. Americans believe in coming up with things by themselves so that all information should be developed in a subtle indirect way.

I feel that all the information for the beginning of the film is inherent in the arboretum, but I still haven't come across the activities

that will best suit the second half. I think that, for instance, the beach research project is important in an economic and commercial way in your area. Would it be possible for me to tape a conversation between Don and someone else commercially involved with that project? Also some shots of what Don does with the trees themselves.

Until this area is developed further so that I can have a concrete structure to work from, I won't be able to decide what to shoot this winter. I need to talk to you personally about this. I have to be able to ask you specific questions about the activities that might be included here to discover how best to handle them, etc. But it is a problem for me to figure out what activities will fit in this category. Below is a list I have made from the literature that I have here. Could you elaborate on it and then call me so that I can ask you about each one? I imagine this is the discussion we should have had in the fall, but that's life:

- Listening sessions on wilderness lands?
- Hoosier Hundred Chapter of American Business Women's Association--what discussed?
- Special trail for Scout use? Scouts planting trees?
- Teacher's training programs--Any planned for spring?
- How does arboretum attract national figures? Attract economic people? etc.
- Operation Green Street.....

In the meantime, would you also send me a calendar of activities as they stand for February."

February 10 - February 15, 1974 - SHOOTING, WINTER (See Appendix III)

February 15, 1974 - excerpt from minutes of staff meeting where proposal was submitted:

Lesley: "In reference to proposal for a film on the Hayes Regional Arboretum, my hope is that we can more or less agree or disagree in the area marked content. Possible treatment is just some sort of idea of what you might do. After seeing shot footage, can get more definite direction."

Mr. Hayes: "After listening to men last night (urban forester's dinner), one knows what might appeal to men who might be potential donors: discussion we had about value of trees in terms of dollars and investment. If we make any bow to other arboreta, that would be part of it. Beautification will not reach too many, but tell them that \$10 an inch @ 4½ ft. - they think in those terms and can reach them. And as a teaching area, too, as well as a source of woody material. If have strong

business leader in charge, will think in terms of beautifying city: an educator will think about lots more kids out there, maybe can use comments from last night as actual dialogue. Value sense--what other people can get out of it."

This was the first event that I thought caught the businessman where he could feel it the most. I totally agreed with Mr. Hayes' comments and planned to use this particular event in the film. I might even have relied on it too much. Until the end I was still trying to build the whole film around this, which was almost suicidal considering how badly the footage had been shot. Here was another case of moving my camera around too much, plus not having the right film to shoot with. This would have also been an excellent time to have two cameramen, so that each could concentrate on a separate element of the event. I would have then had comprehensive footage of both the audience asking and the speakers answering questions. As it was, I was unable to use most of that part of the event; offering as it did some of the dialogue concerning monetary values so vital to the film's audience reaction, and referred to in the staff meeting minutes. What was used, I feel, has worked out as an excellent second best. Optical light and color correction tests of the footage just barely cleared it for use in the final film.

March 29, 1974 - excerpt from Mr. McGraw letter

"Enclosed is the April calendar which you requested. The 'test film' (#7241) taken inside the Nature Center with daylight setting is being mailed today. The meter reading was f.l.4 at 16 frames, but this camera has only an F 2 lens; so it will probably be under-exposed.

The date with Film Associates for screening the rushes is Tuesday, April 23 at 5:00 p.m.

I took a roll of film showing hepatica, snow trillium, etc., and had it developed. It is the first roll since the one was so badly out of

focus. It looks good. Do you want it sent to you?

Let us know if there is anything else we need to do. We'll be looking for you on the 22nd of April."

I asked Mr. McGraw to do this test after I saw the results of the winter shooting which, as I mentioned earlier, included a sequence that was shot indoors, but came out very well. Mr. McGraw's test solved the problem of shooting inside without extra light. Results after this were usually very good, and I was ready to shoot the spring session. It was the best of the three that were shot with lip sync equipment. My hysterical movement calmed down and I also found that having my husband there as soundman gave me the best results, especially when it came to coordinating signals.

April 22 - April 27, 1974 - SPRING SHOOTING (See Appendix III)

I relied on seeing all the results of the fall, winter and spring footage before I began to organize and think about what to shoot in the summer session. I feel in retrospect that my decision to wait was a good one. Both the arboretum staff and I had felt that activities might as well be chosen randomly since there was so much to choose from. The only attempt to organize in advance was to make sure a sample of every kind of activity had been shot. It is reasonable to deal with the tangible results of a project, rather than count on something that doesn't work. And since there is usually an element of chance in any film, it seemed logical to allow chance to work here.

The looseness, however, was also because I had not yet discovered



how to convey the truly unique and vital position of a regional arboretum in its community, to the audience. Although it is obvious that at the time I was personally committed to the concept, I just didn't know how to articulate it in the film. In retrospect, it seems that there was only one thing missing: a concept of the role of the arboretum based upon need. It is so diverse in its activities that it was impossible for me to find one concept upon which all other aspects of the arboretum derive their significance. At this point the script was based on the idea of motivating the target audience from an overwhelming entertainment and educational point of view: "See all the things you can do here in learning, recreating and just plain having fun!!!"

In June I spent a week in New York City syncing up, coding and assembling the sync footage. Always in an effort to cut down unnecessary expense, I was interested in determining whether or not the summer shooting required expensive sync equipment. I wanted to roughly assemble the footage that had been shot so far. By the end of the week in New York, using a flat bed editor that allowed me to concentrate on editing, while not having to worry about technical things, I developed what I thought was a logical organization. Not only was it sequential, but it had a flow of philosophical ideas which I could feel. It lacked at this point only one thing, in my mind: an introduction. Throughout this version, the viewer could get a feeling for the reality of the arboretum, but it required an introduction to establish the space, the lay of the land, etc. I decided that the summer shooting would be used to shoot the auto tour route which would establish some sense of geography and other routine information. Nor did it require sync equipment.

I also began to feel that a limited amount of narration would be needed to pull the whole thing together. However, I spent a great deal of time during the summer shooting session recording conversations to edit into the narration.

July 13 - July 18, 1974 - SUMMER SHOOTING (See Appendix III)

August 1, 1974 - excerpt from letter I wrote to Mr. Hayes:

"I've begun to organize the sound. Since my department will close soon, I want to get what I want transferred to 16mm magnetic, quickly. Then I will be ready to edit it, put it with the film, and then work out the rest of the narration with Joan Lippincott, so that she can record it .....

.....When this is done, I want to go back to New York City for a week to generally fine cut the film. By the end of that week I expect to be rather close to completion. Probably one week editing from the final MIX."

The film's organization and narration were to appear miraculously. Everything was to fall magically into place and all would be done. Were my expectations unrealistic? It is hard to say. Had the narration been developed farther than it was, things might have been different. The film was still at a point where, after a screening, I felt the audience would be overwhelmed by all the activity at the arboretum; that they would want all that to happen in their own communities. I also felt there was enough practical information in the film to appeal to the more practical people in a community. I was convinced that the subject matter, all by itself, would carry the film.

August 15, 1974 - excerpt from Mr. Hayes' letter:

"Your news that you are beginning to see the light at the end of the tunnel, as far as the film is concerned, was happily received here. An amazing amount of outside interest in the Arboretum and how it works seems to have been cropping up lately...I hope and

believe that the film is coming along at almost exactly the right time....the appeal of a project such as establishing a local arboretum vis-a-vis building a new civic center of steel and concrete will become stronger in the future. I think the film will enable us to participate in this growing movement and to be of some real inspiration and assistance to those for whom it is now only a vague and nebulous projection."

October 15, 1974 - My second trip to New York City was less successful:

I was unable to complete and record a narration before I went to New York. Joan Lippincott (the narrator-to-be) and I were, however, able to begin to articulate the flow of philosophical ideas for the beginning, middle, and end of the film.

It would seem that there is a cut-off point for one-man productions. On shorter projects I have been able to accomplish both shooting and editing without either suffering. But it would seem that thirty minutes is really too long for just one person to work on. I did it, but it took too long, and it was not polished properly. A documentary, and especially one where audience motivation remains the primary element of the film, requires meticulous cutting to insure the correct reaction from the audience. I never achieved a true, fine cut during that week because it was still too early in the editing and organizational stage. One obvious indication was that I had to come and work out the narration. Joan and I worked on it and even more changes developed. I showed it to quite a few people and tried in that way to get audience reaction. I wasn't, however, really able to translate feedback into useful information. For example, a comment like, "I wish you had gone slower on the auto tour" probably meant that too much information was being described over the picture. I interpreted it, however, to mean that people were just too fascinated with the picture itself.

The problems at this point were:

1. In an effort to cut down on the number of trips to and from Richmond, I was being unrealistic about how much more work there was. Screenings with the client are more often many rather than few.
2. I had no single concept of what was uniquely inherent in the Arboretum. Rather the concept was based upon an overwhelming impression of activity and entertainment.
3. I also had no definitive narration tying all the activities together. The ideas were forming, but the narration remained too sktechy to tie it together.
4. I was suffering from the responsibility of one person doing a multi-person production.

November 1, 1974 - excerpt from Mr. Hayes' letter:

"The progress report sounds good - if any of us could understand it. But neither Charlie nor Don nor I can really get a 'fix' on how much more there is to do. I'm not asking for an explanation - it's in your hands, anyway, and we'll see the results in a couple of weeks.

What is beginning to bother me is expense. I hope there is not too much more.....

Trouble is: On November 21, 1973, I wrote you and said that \$8,000 was the figure I was carrying in my mind as the cost of the undertaking. I asked you for confirmation, and on January 12th, 1974 you gave me a fine, complete estimated break-down coming \$11,790.00.

Do you know how much today's check and the Ultra-Cine check, make the total come to? It's \$11,841.00 - \$51.00 more than you estimated for the complete job. That's why I wish I knew about what we've got to look forward to in the way of final expense."

I was already aware of the money problem and had already begun some checking and figuring to find out how much more it was going to be. I

made two major mistakes in budgeting. The first was in editing. I had suggested only 25 days for editing (see Appendix IV). I had already used up almost three times that. There was: syncing up footage, coding footage, assembling footage, going over silent footage, editing conversations on ¼-inch tape, transferring to 16mm magnetic, working out narration, cutting and more cutting. A documentary film often takes six months to edit.

I had also forgotten about the very last operation in finishing a film - conforming the original. So I broke down the rest of the work into time segments and then sent a report to Mr. Hayes for him to look over. It is my feeling, now, that one must always double the time one thinks one will take.....

This, also, is where I started to take a second look at the entire project and where, in hindsight, the fine line between working alone or working with a group became apparent. I had not consciously started this project alone; it was really that I had always worked alone in the past. It was only now that I began to realize that I, as one person making a half-hour film, no longer functioned efficiently. This project was not only too large for one person to shoot, but too large for one person to organize and edit alone.

November 15, 1974 - excerpt from Mr. Hayes' reply:

"I appreciate your financial projection for the completion of the film. If you can hold it within the limits you outline - or near to them - we will be able to handle the money part all right."

Late November 1974:

My thesis board saw the film the day before I went to Richmond. They were very upset and negative about what I presented to them as a fine cut.

As I have already mentioned, calling the film a "fine cut" was a mistake in terminology. What I meant was a "rough cut". I must say, I was quite set back by their reaction. To me there were problems, but they didn't seem impossible to solve. Using the wrong terminology seems to be the main reason for the board's negative reaction.

I lost a lot of confidence, which I must have imparted to the arboretum staff the next day. They seemed to like it, but seemed to think it definitely needed more narration, which I agreed with. It was decided that the film would be sent to the arboretum with a tape of the soundtrack, so that they could sit in staff meetings and hash out additions to the narration.

I sent the film to them around the first of the new year, 1975, with a note. Upon looking back over that note, the three-part philosophy it mentions was a good articulation of how I perceived the flow of ideas in the film at that point. If I hadn't been so inept at script writing and so set against narration at first, things might have been better. If, later on, I had looked at my original version with this three-part statement in front of me, I might have stuck to it. It might have worked out well.

January 1975 - excerpt from note to Mr. Hayes which accompanied the film:

"The basic idea of the organization, besides being seasonal, is that it has three areas:

1. The philosophy of helping people to learn about nature. With indirect reference to the article about making nature study popular. And mostly the techniques that the naturalists use to teach. Learning about the object, not just learning its name.....
2. The arboretum as a community service:  
staff meeting - to talk about starting others

urban forestry - importance of urban trees and where an arboretum  
can help  
phone calls - as reference source for information and help  
beach research - a regional arboretum helps the trees of all its  
regional area

3. These two first functions contribute to a goal; helping people live with nature instead of controlling it. The narration hopefully suggests that people take the information they get from the arboretum, either first hand or maybe over the phone, and they use it in their everyday lives. That every little bit that's passed on helps.

The conclusion hopefully suggests that the end result is harmony with nature, like the meeting in the woodland chapel."

### The plot thickens

On a Saturday about the middle of February, 1975 - a month and a half later - I got a call from Mr. Hayes. He said that they had finally sat down with the film and had also found this new book, The Prospective Role of an Arboretum, that put a new light on the whole arboretum concept. They thought that they now had a script they could use for their purposes, and I could do my own more aesthetic version for my thesis. This was extremely shocking to me, and also very threatening, although I doubt if it was meant that way. I had always seen my role as interpreting someone else's information to the layman through film. Had I totally failed to do this? I asked if I could come down to Richmond and talk with them. The following Tuesday evening I was in Richmond and had a chance to look over this new book before the meeting. Next day I met with the staff and Fran Eward, a local radio announcer and the new choice of narrator, who read the new script. Even though I had skimmed the new book and could remember Mr. Hayes' earlier telephone comments, I was not prepared for the total change they had made in their new script. It was a different film. It left no room for any of the comments I had prepared the night before about working the

new book's approach into the existing film.

I asked, therefore, for permission to work on a second version--free--while re-editing a version to fit their new script. They not only agreed, but offered to pay expenses to bring both to a rough cut stage. (See Appendix V)

Upon my return to Rochester, my husband suggested that I take a fresh approach to the whole project, in my version. This seemed like an excellent idea and opportunity. It is at this point, when I was about to take apart the first version of the film, that I wished I had been able to keep a copy of each of the versions that were made. It would have been an excellent example for later instructional purposes, of how completely different statements can be made from the same footage. For my own version, I decided to use the recently discovered book as the basis for a new script. It offered an exciting new approach to the philosophy of an arboretum. It was as though the book had been written about Hayes. I felt it solved a number of my previous problems and brought the rest into perspective.

1. I was now able to develop the organization of the film upon a concept of need. Overwhelming chaotic activity and entertainment were replaced by an orderly description of a unique institution. Unlike others that focus on the environment with diverse interest, the regional arboretum can concentrate on one--a community's need for good environmental decisions based on research and popular education to spread understanding of sound regional land management. It can do this in such a way as to make it not only vital, but inviting.



2. I now looked for help in writing the script for the narration so that I was not relying solely on my own viewpoint or abilities. I also solicited others for their reactions to see if the theme in the script was coming across.
3. The script was written for the most part before the picture was recut to it.

It took me until the middle of July to get both versions ready. About the first of August I went to Richmond and with the staff, screened them both. First, the Arboretum's version, which was, in effect, a tour through the grounds with information about the activities at the arboretum. It concluded by explaining that the founder's hopes were to help others start regional arboeta and that the staff was available to offer guidance. Second came my version, which presented Hayes as a formula for regional arboreta. It ended similarly, but it began with a rather heavy ecological message in the introduction.

The staff's impression after seeing the films was that they wished they could have both. But during the ensuing discussion it was decided to go primarily with my version, but to eliminate the heavy ecological introduction for a more tempered one. I debated the issue with them quite extensively, but it was not hard to understand why they had mixed feelings about beginning a film with so controversial a phrase when it was already the underlying theme of the whole film. The rest of the information was far too important to make an issue of one word. The introduction was changed to its present form.

The next three months, from September to December, found me hopping back and forth from Rochester to Richmond, editing and screening. I also

had another rough cut screening with my thesis board. By mid-December all major decisions were finalized. I then fine cut the film, which meant meticulously tuning, etc., and showed it to my thesis board again. They could now see an enormous improvement. My terminology "fine cut" coincided correctly with what I showed them. I then went to New York City again, to use a flat bed editor for the third and final time to get ready for my mix, which occurred at the end of that week. I then prepared certain shots to be sent to an optical lab for corrections and masters. This took longer than I expected, so that when they returned and I had conformed everything to the work print and sent it off to the lab for answer print, I was almost unable to have a thesis screening before the end of the school year. However, it took place on the very last day of Spring Quarter, and my board accepted my thesis. I took it to Richmond two weeks later, and the Arboretum staff were also satisfied. It is now in the process of being duplicated for release.

## CONCLUSION

I would like to begin by saying that this project was blessed from the start by a client that had the understanding and the confidence to put the production almost entirely in my hands as a filmmaker/communicator. Time proved that he was right. The problems I encountered for the most part were of my own making, but they did not jeopardize the completion of the project, only the efficiency of its completion. I feel, even now, that Mr. Hayes' confidence in me was not misplaced. If future clients give me the budgetary and production freedom that he did, I will be much blessed. However, such a situation is delicate and should be handled with complete honesty and consideration.

The process I used for getting money to make the film worked out very well. It boils down to one important thing: you only need one of the hundred or so people you contact to get the funding you require. If you are flexible and believe in perseverance and a dash of chance, then you will find interesting films to work on. I firmly believe, based upon my own example, that I will find good results and few disappointments if I follow approximately the same steps as those outlined in the introduction, wherever and whenever I need to find financing for a film project.

The University Film Study Center Newsletter has published a number of articles entitled Guide for Student Filmmakers. The one subtitled "How to Find Money for Your Film", by Mike Prokosh, offers further suggestions and approaches to finding money for film production.

Although I don't have the final figure, I would say that I came very close to making this film for \$15,000.00, which was my goal. There

are however, definitely factors in the three stages of the project--pre-production, production, and post-production--that I would change:

Pre-production:

Prior to this particular production I had always found editing to be the most manipulative area of film production. For instance, it can point out the failings of bad camera technique, and illustrate how important a variety of camera angles can be to the effective cutting of a sequence of shots. At the same time, however, and very quickly, it can make an editor wish he were a genius if he/she is required to cut without cut-a-ways and camera angles. If she is successful, an editor begins to feel an ability to clean up almost any mistake a cameraman can make. Therefore, if you are also the cameraman and you unconsciously rely on solving any problems that might occur in the editing stages, you are playing the odds at the wrong end of your production.

I have often felt that editing is an under-rated learning tool in filmmaking instruction, but after finishing this production, some of the reasons for de-emphasizing editing become clear. It is good to know that in the last stages of a production it is possible to compensate for errors made earlier, but it is a serious mistake to rely on this fact. In the case of this project, had my pre-production been more extensive and more comprehensive, the shooting would have been under better control, with fewer mistakes, and the editing would have been used less for cleaning up mistakes, both technical and organizational, and more for aspects like the refinement of rhythm and tempo. All of these things would have contributed to a better end product.

The first area of pre-production that I will want to do differently the next time is research and objective clarification. The report, The Prospective Role of an Arboretum, was written in 1972. I began my project in 1973. Had my research been more extensive, I might have come across this report in the beginning rather than at the end. This would have meant building upon the clear single concept -- stated in the report -- the need for a regional arboretum -- at the beginning of the production. Rather than a last ditch effort, the "need concept" would have been the backbone of the original proposal that I wrote for the arboretum staff, and the underlying, unconscious motivator of what to shoot and how to shoot it.

After looking over the Arboretum pamphlet in Appendix VI, one might understand why, for the most part, the scripting and shooting could remain open and loose while employing the "need concept" for a more direct purpose and singular conviction underneath.

Because the report appeared so late, the theme of the film was developed far after the proper time in the production and I was forced to use some footage shot prior to the inception of the theme which, to me, was not up to professional standards to fill in the gaps in the last script. These shots were photographed by the staff of the arboretum and, though satisfactory, contained some technical failings (i.e. jerky pans or incorrect film stock). Had the script and the film's objective been clearer in the beginning, errors of this sort could have been avoided.

The second article under the heading Guide for Student Film Makers, subtitled Organizing a Film Production, offers further evidence of the importance of pre-production planning. In the area of estimating and budgeting, I would try, in the future, to elaborate more. I would refer

to a book such as How to Prepare a Production Budget for Film and Video, by Sylvia Allen Costa, as a guide. It offers such useful information as the following:

"In film there is a basic formula for the editing of a specific production. If it is a half-hour program, you can figure seven weeks; if an hour, twelve weeks. A commercial should take no longer than twelve days; a feature no longer than nine months. However, as with everything else, these times can vary with the project. When it comes to editing, take into consideration how many editors and/or assistants are needed, as well as syncing time, equipment, space, and supplies. All these figures should be included in your estimate....."<sup>1</sup>

#### Production:

For this film's particular production and budget situation, I would have added one more person to the production unit, making a total of three: director/cameraman, soundman, and one assistant. Once the events of each shooting session were established, all three of us would confer about each event to be shot on each location. It is my feeling that three heads would anticipate more of the problems than two could. The delineation of duties would produce fewer mistakes - such as reminding the cameraman to change aperture when moving back and forth between shooting out a window and returning to the interior, or having more people to set up a difficult mike arrangement. The salary for the third person would offset other costs in corrections later.

The production unit would also add to pre-production a special trip to the location prior to shooting to do things such as extensive exposure tests. This trip could also have included important research with other

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<sup>1</sup>Costa, Sylvia Allen, How to Prepare a Production Budget for Film and Video Tape, 2nd Edition, Blue Ridge Summit, PA: TAB Books, 1975, p.8.

members of the production unit and the arboretum staff, sound testing, discussion of equipment required, which would have also avoided costly corrections later.

Relying upon the help of others in the production not only lightens the total burden of the producer/director (in this case), but it contributes the variety of other points of view to the overall production. The various contributors to the production fill, at various times, the role of the audience anticipating audience reaction so necessary to a film that is intended to motivate. As I mentioned a number of times in the body of my report, attempting this complex a production alone was not a deliberate act, but rather the result of a lack of personal experience with production units and the foresight to use them. The total project suffered from this absence of previous experience and foresight.

### Post-Production

I filled most of the major production jobs in the project. If I had it to do over again, there are many jobs I would separate. As I stated earlier in the pre-production comments, I would definitely have different persons fulfill the roles of cameraman and editor. If I were cameraman, I would hire the editor, or vice versa. If the budget were very tight, I would act as his/her assistant while also filling the role of the director making the major decisions. As the producer/director, I would be able to maintain that very necessary detachment from the footage. It is said that a cameraman can fall in love with his own footage and is often unable to edit it objectively. I was accused of this. Perhaps because of my misuse of terminology (showing "rough cuts" and calling them "fine cuts"), perhaps

because it was true, but it was most likely because of the lack of pre-production planning. It is possible that if my objective and script had been clearer from the beginning, detachment might not have been such a problem, but choosing another person to edit would prevent those kinds of problems almost entirely. Having both another person as editor and a clearly defined objective would have left to the editing stage the singular task of refining the end product. Better planning by the camera crew would have freed the editor to worry more about flow of ideas and less about working around bad camera technique.

Before I started this film, I had always made films alone. I would say that for the independent art filmmaker, that role is sufficient. I would also say that this applies to short films of almost any kind. However, in productions as complex as this one, I will in the future attempt to use as many people as the situation warrants. Determining the need for more help can only be accomplished by much more pre-production planning.

Whereas it seems the general orientation in filmmaking instruction is toward one-man productions, this project has pointed out the pitfalls of such an approach--an inability to perceive the need for multi-person units. If larger production units should be an impossibility within the facilities available to a film curriculum, it seems necessary to develop some assignments which deliberately and vividly illustrate the wise use of crews in an individual student's project.

I hope to instruct filmmaking in the future. If I do, on the basis of my experience, I will more emphatically than ever attempt to impress the need for the application of production crews and pre-production planning upon my students.



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Proposal for production  
of a  
short-subject color film  
on the subject of:

The Forester and Ecology

Lesley Pollak Woodfin

RD2  
LeRoy, NY 14482

spring 1973

One way people can begin to better appreciate trees is to understand man's relationship with trees. This can be done very conveniently by getting to know one's local forester. This film is about one such forester - his role in a certain sense, is a very complex one. On the one hand his job is to protect the forests and to make sure they are not abused. On the other hand he is a manager of the forest, his role being to help those who use trees as a raw material. With his guidance the forest industry locates trees and maintains the crop of trees as a natural resource.

Over the years many people have felt that these two roles of the forester are conflicting ones: that he has become either a mere manipulator for industry, who no longer cares for the trees, or a DIVINE PROTECTOR of the woodlands, who thinks his word is law. The fact remains that the forester can fulfill both functions. Because of his professional knowledge, he has learned that, with sensitivity to ecology, man can easily have both industry and woodlands. For example, even certain kinds of clear cutting can be accomplished in an ecologically sound manner. The forester can moderate solutions to the conflicts between naturalist and lumber jack. There is no doomsday in sight as long as the woodlands are managed ecologically.

There are, however, other problems which are more subtle and on a smaller scale than those connected with the clear cutting of large tracks of timber. They have to do with trees in our own back yards and how we relate to them and to nature. My interest is to consider one such small but vital situation as I follow the daily routine of a local forester and document his day-to-day management of our ecology.

### Possible Treatment:

The film will take the form of the documentary monologue. After taping a number of conversations with the forester, following him for a period through his daily routine and questioning various of his operations, motivations, and convictions, I will begin to shape the story based upon what develops. It will center around a local event which illustrates the forester's feelings about practicing ecological management. The visual lead-in will support the dialogue which in turn supports the thesis of the film: that the forester can be a sensitive public teacher of sound ecological management. The central events will be the forester teaching a companion about his trees as they both watch them grow to maturity. For example:

(possible dialogue of the middle section of the film)

"There's a man I know who lost his job when General Dynamics left Rochester. He's also been very sick lately and his doctors prescribe lots of exercise. So when he came up with the idea of growing Christmas trees, he had a livelihood and all the exercise the doctors wanted him to take. Now fir trees are not a climax species around here, but they do grow reasonably well in this soil. And rather than leave the land bare, they create a small wildlife area which make the land useful to other creatures of the earth rather than just the grower."

As the trees grow they help the man both monetarily and physically. More importantly, they bring another human being closer to the natural world that so many men have abandoned. Another impact which the film should have is to demonstrate how helpful district foresters can be even in areas which do not have abundant forests.

Suggested audience and effective exhibition outlets:

Some of the groups who would be interested in using a short, attractive film of this sort are:

county, state, and federal  
forestry department  
classes in: Botany  
public relations  
forestry  
ecology  
boy scouts  
girl scouts  
nature groups  
ecological action  
groups  
all civic minded  
organizations

Length, stock and gauge:

5 to 10 min 16 mm color or Black/White, sync, and wild sound

Very rough cost estimate: (for color film)

sound equipment .....\$200.00  
film stock .....\$200.00 4:1 ration, 10 min.  
sync. equipment.....\$400.00 approx. 2 weeks  
dev. and work print.....\$300.00  
edit rental .....\$400.00 2 weeks, editing room in NYC  
mix .....\$100.00  
answer print .....\$100.00  
misc. ....10% of total

This does not include salary, rights agreements, or equipment that might not be necessary because of schools provisions, etc.

Time for Production:

Considering the documentary aspects of this film it would be necessary to allot at least six months for production.

Proposal for production  
of a  
short-subject film  
on:

The Nutrient Cycle

Lesley Pollak Woodfin

RD2  
LeRoy, NY 14482

Spring 1973

The purpose of this short film is to stress how important it is for us to think of the world in terms of the cyclical structure of all living things. Trees and their own nutrient cycle are the subject of the film. The tree cycle is a very basic one. The essence of the cyclical structure of nature is that energy in its various forms is never lost. It merely changes from one form to another. Nutrients are nature's source of energy. All living things survive and grow using nutrients, which are passed on from one organism to another in a state of unending transformation.

An organism will eat food and pass it off as waste which another organism will consume as food. In a large group of organisms the same chemicals are required to live and grow, but in different forms. It is important, therefore, for continued survival, that a community of organisms must constantly produce these forms of energy in their various chemical states for use by each member of the community.

One simple but graphically clear nutrient or energy cycle involves the tree. The tree gets its food from the soil to form its branches and leaves. The leaves fall and become the food or nutrients for various micro-organisms that decompose them and return them to the soil as food for trees. Thus we see a community of organisms producing their nutrients one for another and one from another.

Another longer cycle, that also involves the tree, would include the insects who eat the leaves of the tree; they are themselves consumed (perhaps in a fairly long chain of predator relationships) by other animals who then defecate. The resulting waste



then becomes the food for micro-organisms who decompose it and return it to the soil as food for the tree, which in turn produces another leaf.

It is clear that there are many forms of human waste that do not follow a direct cycle. This energy from human waste is not necessarily lost, but not effeciently used by the natural world. In nature, if one of the members of the community is not at hand to complete a cycle, the system may die or become overburdened in some area. In the case of humans the result of such a cyclical breakdown is some form of pollution. One way we can reduce pollution is to learn to think and plan our activities with sensitivity to cyclical flow.

## The Treatment:

### Picture

a slow fade in, as if the sun were rising, on a closeup shot of a young spring leaf still a little limp from the struggle of life. As the light on the frame reaches its peak and the morning dew sparkles in the sunlight a small leaf-eating insect makes it sway up or down the leaf, munching as it goes. This dissolves to a closeup shot of a ladybug (or other carnivorous insect) who eats up the first one. Again a dissolve to a tit or wren eating the ladybug and this dissolves into a shot of an owl or hawk catching the tit or wren for his own supper.

A cut to a shot of the owl or hawk defecating, another cut to a macro shot of the waste and then a series of shots of fungi and bacteria decomposing the waste (or in the process of decomposing).

This is followed by shots of various soil organisms breaking down the waste and soil, such as the earth worm, etc.

Dissolve to a shot of a leaf in the fall gliding to the ground.

A series of shots follow, that zoom (in cuts) closer and closer in on the leaf, again showing a series of steps in the decomposition of the leaf: macro-organisms, fungi, bacteria, and micro-organisms. Dissolve to a shot of roots at the bottom of the tree. Camera begins to tilt slowly up the tree trunk (with just the trunk visible in the frame); it eventually stops and focuses on one leaf at the top of the tree.

### Dialogue

...most animals or parts of animals are food for other living things. If they are not directly food (the lady bug to the wren) then....their waste may be food for the organisms of the soil.

Again the food is returned to the soil to feed the tree and its leaves.

When the leaf falls it becomes food for the fungi and bacteria and other organisms, thus returning it to the soil. In this way the trees and other living things keep using the same food over and over again. Nothing is ever lost. What is waste to one is food to another. There is always someone who can use it. In this way the tree shows how energy in the form of nutrients is never wasted; in the chain of events in nature, energy or nutrients are continued in a never ending cycle.

Suggested audience and effective exhibition outlets:

Some of the groups who would be interested in using a short film of this sort are:

Federal, state, and county forestry departments  
classes in: Botany  
                  ecology  
                  biology  
boy scouts  
girl scouts  
nature groups  
ecological action groups  
natural history museum service people

Length, stock and gauge:

5 to 10 min., 16 mm color, wild sound

Very rough cost estimate:

Sound equipment and camera..\$400.00 micrography equipment  
Narrator fee.....\$100.00  
film stock.....\$200.00 4:1 ration, 10 min.  
dev. and work print ....\$300.00  
edit rental.....\$400.00 editing room in N.Y.C., two weeks  
mix.....\$100.00  
answer print.....\$100.00

This does not include salary, rights agreements, or equipment that might not be necessary, because of school's provisions, etc.

Time for production:

A great deal of nature photography and cinemicrography is required along with preparation of laboratory specimens developed for shooting. Six months will be necessary for the production.

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Proposal for production  
of a  
short-subject film  
on:

Intuitive Conservation

Lesley Pollak Woodfin

RD2  
LeRoy, N.Y. 14482  
spring 1973

The function of this film is to provide a glimpse into the historic relationship between people and trees.

### Thesis

Of all the cultures which have lived in the area known as the United States, in some sense the most "natural" of them has been the American Indian culture. As a people, generally, they have been more sensitive to natural phenomenon than have others (i.e. English, Spanish, German, French, etc.). This is, of course, a generalization - vivid exceptions are numerous on both sides. Although some of this sensitivity stems from religious or superstitious heritage, generally it might be said that the Indians, in their teachings, tend to believe that all levels of life have the right

"to live, to propagate and fulfill their own destinies as man himself claims it".

Further, it might be said that the majority of white men tend to consider trees as merely an obstacle and vehicle to wealth and progress, while the Indians learned to live with them and to appreciate the concept of trees as a precious natural resource. We have witnessed the white man's virtual extinction of so many species of plants and wildlife, and his realization of that extinction as merely the "unfortunate biproduct" of essential economic progress. But the Indians practiced, from generation to generation, the most fundamental and basic principles of conservation:

If to take a vital part of a tree is to kill it - then one might as well kill the tree outright; but kill absolutely no more trees than one needs. And in the case of parts not vital to the tree, one should know how to extract them without harming the tree.

The Indian is an intuitive conservationist by using basic principles of conservation.

### The Treatment:

The above stated thesis will be developed with respect to the narrow issue of the ways in which the American Indian is sensitive to trees. Development will not be explicit in the sense of being a comparison between the white man and the Indian directly, but rather, as stated, to provide a glimpse into the historic relationship between people and trees. It will be a short, animated (or otherwise "unreal") film developing abstract visual images to stimulate the audience's natural imagination to what the real situation might have been. The time frame will be historic, dating from 50 to 200 years ago. But, rather than fight with the demands of total authenticity (period costumes, settings, etc.) real life photographic images of real people will be abstracted by one or another technical effect such as high contrast printing or rotoscope animation. These more or less distorted visuals will reveal the action of the story which the sound track will tell, of various ways Indians as people relate to trees as naturalists, admirers, worshipers, or organisms of a biotic community. The story to be told is suggested, by the following quotations:

Trees are many things to the Indians. They are food:

"He knew the food value of every tree, shrub, and weed. Several of these still bear the names which the Virginia colonists adopted from the Indians, noted instances being persimmon, chinquapin, and hickory, which trees owed their chief value to the food which they supplied the Indian"

They are also tools:

"A "coaster" was made of slippery elm bark, a stiff piece of bark being selected, turned up at the end, and a piece of stout twine attached to this portion. A child stood on this with one foot, held the twine in its hand, and coasted down hills in winter."

They are also medicine:

"The Canada band of Laurentian Iroquois, at that time living in the environs of Quebec, made a sensational beginning as teachers when in 1536, after 25 of his able seamen had died of scurvy, they showed Cartier how they obtained relief from a simple decoction of the bark and needles of hemlock, or white pine."

They had supernatural powers:

"In addition to the belief in the immortality of their own souls, they suppose that all animals, fish, trees, stones, etc., are endued with immortal spirits and that they possess supernatural power to punish any one who may dare despise or make any unnecessary waste of them."

But above all, trees were precious to the Indians:

"in getting wood or brush from the forest we do not take all there is in any one place. We depend on the wood or bark. If we destroyed it, we would become vagabonds."

### Suggested Audience and effective exhibition outlets:

Some of the groups who would be interested in using a short film of this sort are:

federal, state, and county forestry departments  
classes in: history  
                    botany  
                    crafts  
                    medicine  
boy scouts  
girl scouts  
nature groups  
ecological action groups  
4-H clubs  
natural history museum services

### Length, Stock and Gauge:

5 to 10 min., 16mm color, wild sound,  
using one optical effect such as roto-scope animation or high  
contrast printing of original B/W camera Orig. Color will be  
added artificially in the optical effect stage.

### Very Rough cost estimate:

Sound and camera equipment.....	\$100.00	
B/W film stock.....	\$100.00	3:1 ratio, 10 min.
Dev. and Work Print.....	\$150.00	
Edit rental.....	\$200.00	1 week, editing room in N.Y.C.
optical effects.....	\$500.00	depending upon which effect is used
mix .....	\$100.00	
answer print.....	\$200.00	depending upon whether effects are all optical or in the final
misc. ....	10% of total	printing

This does not include salary, rights agreements, or equipment  
that might not be necessary because of school's provisions, etc.

### Time for production:

If production consists of shooting in B/W, editing and then animating the edited version. The first two efforts should take no more than two months. The third part, that of animating the B/W will depend upon the effect used and might take anywhere from a month to a year.



Proposal for production  
of a  
short-subject color film  
on the subject of:

Maple sugaring

Lesley Pollak Woodfin

RD2  
LeRoy, NY 14482

spring 1973

## Introduction:

Maple sugaring is a process requiring craftsmanship - craftsmanship to bore the holes in the trees, to correctly insert the spout and hang the bucket to catch the syrup and to develop an effective system for getting the sap back to the sugar house. Craftsmanship is also required in the sugar house, especially in the use of the evaporator. Special construction of the house, adequate storage space for the firewood supply, and vessels for storing the sap and the syrup are needed.

The actual maple sugaring experience, if done well, can be a worthwhile one for a man or a family and can supply enough maple sugar and syrup for their personal needs.

The syrup is made by boiling off the water-content of the maple sap. On the average, thirty-two quarts of sap are needed to make one quart of syrup. To make maple sugar, the syrup must be boiled longer until it reaches a granular state.

The film will depict realistically the various steps in maple sugaring, showing the process on a natural scale. My two objectives in this film are to emphasize the one-to-one relationship of man and trees and to give an accurate account of the craft of maple sugaring. Ultimately, I hope that the film will motivate the audience to become involved with trees individually.

### Treatment:

The sun breaks on a fresh winter morning; there is snow on the ground. After a bit of appropriate imagery, the camera pans to a man setting out all of the necessary tools that he will need for tapping the trees. Individual closeups will acquaint the viewer with each tool. The camera will follow the man as he taps a number of trees, bores the holes, sets the spouts and attaches buckets and lids to each spout. A closeup will show the sap dripping from the end of the spout and filling the bucket.

Wild sound (as opposed to synchronous sound) will be used and will correspond with the events; clear crisp sounds of a cold winter day like snow crunching, buckets clanking, noses sniffing and heavy breathing. The dialogue will suggest two people discussing the best system for gathering the sap and the picture will show how they finally decide to do it. This cuts to others of the group building a fire and hanging the kettle so it will be ready for the sap. The camera will then follow the men gathering the sap down to the fire. Along with a jolly sequence of people attending the fire, etc., as the sap boils, there will be a very graphic account of a laboratory beaker showing exactly the quantity of sap it takes to make syrup.. a slow time lapse of the sap boiling down.

The film will finish with the group making and eating 'sugar on wax', maple sugar and maple syrup.

### Another possibility

The entire film described above could be done showing one person doing the whole process.

Suggested audiences and effective exhibition outlets:

Some of the groups who would be interested in using a short, attractive film of this sort are:

Classes in: crafts  
home economics  
recreation  
organic farm groups  
4-H groups  
boy scouts  
girl scouts  
nature groups

Length, stock, and gauge:

5 to 10 min. 16 mm color with wild sound (no sync.)

Very rough cost estimate:

sound equipment .....	\$300.00	
film stock .....	\$100.00	3:1 ratio, 10 min.
dev. and work print .....	\$150.00	
edit rental .....	\$400.00	2 weeks, editing room in NYC
mix .....	\$100.00	
answer print.....	\$100.00	
Misc. ....	10% of total	

This does not include salary, rights agreements, or equipment that might not be necessary, because of school's provisions, etc.

Time for production:

The maple sugaring process will only be done once for the camera. It should only take a day to shoot. The film should take about three months for complete production.

Proposal for production  
of a  
short-subject color film  
on the subject of:

Wind and Trees

Lesley Pollak Woodfin

RD2  
LeRoy, NY 14482

spring 1973

## Introduction:

The interaction of wind and trees in the forest is an exciting and complex phenomenon. It lends itself well to being expressed filmically. Imagine the possibilities of capturing the natural sights and sounds of trees and wind to create, in effect, a natural ballet. Combining the wind's natural music and its interaction with the trees can develop a dramatic and aesthetically enlightening film.

The variety of ways in which wind and trees interact provides fertile ground for the content of the film. Without actually describing the phenomenon listed below, the filmmaker can illustrate such physical events by primarily emphasizing their aesthetic qualities:

The TREES can act as a windbreaker.

The WIND prunes dead branches;  
It spreads tree seeds;  
It changes the humidity in and around the forest;  
It can blow trees over;  
It rustles the trees' leaves and in so doing increases  
the amount of light in the forest;  
It desiccates the trees - makes them look one-sided by  
causing the buds on one side to dry up and drop off;

Wind and trees interact aesthetically as well. Little every-day things that we take for granted assume new meaning:

Usually motionless trees take on visible movement and dance  
and sway when the wind blows.  
They make beautiful light patterns against the sky and on  
the forest floor.  
Their musical sounds are unique and beautiful.

Possible treatments:

A slow fade in, as if the sun were rising, on a closeup of a young spring leaf:

A caterpillar climbs up a twig. A spider web glistens in the morning light and a bird chirps from a high limb. His head twists alertly at the sound of a slight rustle in the leaves.

Up to this point there has been only quiet natural presence and sound in the air, but with the twist of the bird's head there is a flush of rustle in the leaves and the scene cuts from the bird to a few gently quivering leaves. A series of shots illustrate the gentleness of the moment in the tops of the trees: medium shot of a small understory tree; closeup of one leaf:

The breeze turns into a balmy wind that make the trees sway gently against the sky.

Pains are taken to make a sensitive transition both visually and in sound to portray the feeling of a hot, balmy summer day:

The natural sound of the rustling leaves turns into a clattering of leaves, which very subtly turns into a soft whistle as the leaves, in a series of dissolves within which they turn color, begin to fall off. The wind has obviously picked up even more speed and the swaying of the tree trunks becomes more pronounced.

By now there are no more leaves on the trees and the scene becomes a series of stark but beautiful winter landscapes with the shrill sounds of the wind rustling through the trees. The sound of the wind builds to a roar and climaxes as a large branch falls to the ground, taking other smaller ones with it.

A calm falls as a little yellow color creeps into the winter landscape and with a series of sounds of Spring, the dripping and thawing snow and the gentle rush of warmth in the winds...the wind-storm and the film ends.

Suggested audience and effective exhibition outlets:

Some of the groups who would be interested in renting a short, attractive film of this sort are:

county, state, and federal  
forestry dept.  
classes in: Art  
film making  
botany  
boy scouts  
girls scouts  
nature groups  
art appreciation groups  
day care centers, as a "experience"  
film  
ecology action groups

Length, stock and gauge:

5 to 10 min. 16mm color film, wild sound (no sync.)

Very rough cost estimate:

sound equipment.....\$300.00  
film stock .....\$100.00 2:1 ratio, 10 min.  
dev. and work print .....\$150.00  
edit rental.....\$400.0 2 weeks editing room in NYC  
mix.....\$100.00  
answer print .....\$100.00  
misc. ....10% of total

This does not include salary, rights agreements, or equipment that might not be necessary, because of school's provisions, etc.

Time for production:

Taking the four seasons in consideration, as the treatment calls for, the film will require one year for production. It could be done in about 5 months by including only one season (3 months for shooting plus regular production time of 2 months).





REC'D SEP 4 1973

Hayes Foundation, Inc.

To ~~Prince E. Hayes~~, P.O. Box 274, Richmond, Indiana 47374  
 Subject Invoice  
 Date 8.29.73

First Meeting: { Aug 21, exploration, w/staff, 1-3 pm)  
 { Aug 22, development, w/staff, 1-3 pm)

Transportation.....\$24.70-one-way.....\$49.40

Consultation.....one day.....~~Aug 22-73~~.....\$40.00

\* Film purchased for Mr. McGraw's use.....\$40.16

Total \$129.56

SEPT 11 1973  
 DATE PAID

Lesley Pollak Woodfin

She stayed & will stay at Hayes House. See her accompanying letter of Aug 29-73

\* 16 mm Ektachrome, so that McG's future Arb movies may be integrated into Mrs Woodfin's work. She will be making over the next 12 months, a 16 mm. 27 minute color movie, with sound, suitable for outside & rental showings & suitable for 1/2 hr TV show - film to tell the story of the Hayes Arb - how conceived, how developed, how maintained - its uses & benefits to the community and the relative simplicity of starting similar "Regional" Arbora in other communities



# Film Log - Fall 1973

10/9	roll 1	7242	audubon soc. & nature sketching
10/10	roll 2	7241	nature sketching
10/10	3	7252	Wernle Home Lycaster teenagers
10/10	4	7242	photo & Lapidary
10/10	5	7242	lapidary & christmas crafts
10/10	6	7242	christmas crafts & photo
10/13	7*	7252	garden craft class
10/13	8*	7252	garden craft class
10/13	9*	7252	garden craft class
10/13	10*	7252	garden craft class 100ft.
10/14	11*	7252	early history - about beginnings
10/14	12*	7252	early history - about beginnings
10/14	13*	7242	Ramble Elaine's group leaf trail
10/14	14*	7242	Ramble Elaine's group leaf trail
10/13	15	7252	Arb. Garden down from Hayes House
10/14			Ramble parking lot
10/14	16	7252	Ramble parking lot
10/14	17	7241	Ramble Don's group
10/14	18	7241	Ramble Don's group
10/15	19	7241	Arb. General
10/15	20	7252	Arb. General
10/15	21	7252	Arb. General
10/16	22*	7242	school group parkview kindergarten
10/16	23*	7242	school group parkview kindergarten
10/16	24*	7241	school group parkview 4th 100ft
10/16	25*	7242	school group nickolson 1st

\* in lip sync

Tape Log - Fall 1973 0-15/73

10/13 Garden craft harvest  
 10/13 garden craft harvest and B. Hayes, P. McClure, & J. Cope  
 10/14 Oak Demo. area - early history  
 10/13 P. McClure - early history, sound only  
 10/13 P. McClure - early history, sound only  
 10/14 Ramble - Elain's Group - Leaf trail  
 10/16 school groups - parkview kindergarten and 4th  
 10/16 school groups - nickolson 1st

10/16 200ft 2nd dressing area

10/16 200ft 2nd dressing area

10/16 200ft 2nd dressing area

10/16 200ft 2nd dressing area

10/16 200ft 2nd dressing area

10/16 200ft 2nd dressing area

10/16 200ft 2nd dressing area

10/16 200ft 2nd dressing area

10/16 200ft 2nd dressing area

Film Log - Winter - 2/10-15/74

roll #		sound	
1	100ft	*	bird house give-away
2	200ft	*	nature ramble
3	100ft		trees
4	200ft		seed give-away planning meeting
5	"		
6	"		
7	100ft		trees
8	"		
9	100ft	*	class dressing exhibit window
10	"		
11	200ft	*	zoo speaker
12	200ft		maintenance pruning
13	200ft	*	Staff meeting
14	"		
15	200ft	*	tree meeting - city forester
16	"		
17	"		
18	"		
19	100ft	*	Don measuring beach research tree

Tape Log - Winter 2/10/15/74

All Sync

Bird house give away

Winter nature Ramble

Staff meeting

Tree meeting - city forester

Don Measuring beach research tree

zoo speaker

class dressing exhibit window

# Film Log - Spring 1974

1	7252	200ft	Sync	Exploring class
2	"	"	"	"
3	7241	"	"	Teacher's conference and children in bird room
4	"	100ft	"	Teacher's conference
5	"	"	"	"
6	"	"	"	Garden Club
7	"	"	"	"
8	"	"	"	Woodcarving class
9	7252	"	"	Birds at window
10	7241	200ft	"	Turn Key group
11	7252	100ft	"	birds calling
12	"	200ft	"	Maintenance crews digging up trees
13	"	"	"	planting trees
14	"	"	"	grading, mowing, chipping branches
15	"	"	"	McGraw and Parks on phone

## Saturday and Sunday projection

bird class 7252 400ft sync

nature ramble 7252 400ft sync

photo class 7252 100ft sync

## Sunday's

Registration 7241 200ft sync



Film Log - Summer 1974  
all shot silent:  
Nature center cut aways  
leaf focus pulls  
discovery class  
Arboretum Garden  
explor ecology class  
nature trails  
research pond  
buildings  
birds  
field habitats  
auto tour gate  
leaf guide, more cut aways  
tour with C.F.McGraw  
woodland chapel  
Summer Institute  
Indian lore class  
bird watching room  
bus on tour route  
farmers group  
rock class

these subject were shot some more than one roll  
24 rolls shot including the tail of a foll in Charlie's camera.

7/18/74

Tape Log - Summer 1974

these conversations were taped:

Paul, Brice, Don

Charlie, and Fran

Charlie giving tour

Don and Elaine

Brice, and J.Cope

Jack, Jessie, and Mary Davis

Sound effects were recorded to use through out the film:  
such things as:

woodland chapel

bird watching room, in and out

Millie's pond early in the morning

Arboretum Garden

natural habitat

fern garden

research pond

nature center setting

wind rustling the leaves of various trees

20 reels were used to cover the above

7/18/74



## Expense Estimate

### Per Season:

film...4,000 feet.....	\$350.00
process and work print of film....\$.17/ft.....	680.00
¼ inch sound tape.....approx.....	50.00
16mm magnetic film...3-1200ft rolls..\$20.00ea..	60.00
camera and freight.....	510.00
film and processing for McGraw's shooting.....	80.00
camera man...7 days and expenses.....	400.00
soundman...7days and expenses.....	200.00
	<u>\$2330.00</u>
total expenses for shooting 4 seasons.....	\$9320.00

### Post Shooting:

interlock screenings in Dayton..\$40.00/hr....	\$120.00
editing throughout year....25 days.....	\$1000.00
mix and optical negative-approx.....	400.00
titles and effects - approx.....	400.00
misc....leader, reels, synchronizer, etc.....	200.00
answer print.....\$.1875/ft + effects.....	<u>350.00</u>
	<u>\$2470.00</u>
4 shooting sessions and post production.....	\$11790.00

### Music:

approximate cost of original recording.....\$500.00  
or  
approximate cost of local musician or Lib. sound...\$150.00

Lesley Pollak Woodfin



M E M O R A N D U M

March 14, 1975

From: Brice E. Hayes, President

To: Lesley Woodfin

Subject: Completion of Arboretum Movie

Mr. McGraw told me that he sent you, this week, two copies of the Arboretum movie which he made - the one you viewed for the first time when you were here in February. He ordered two copies from the processor and kept one of the new ones here, sending you the used print and one of the new ones. The original master is still here, in his possession.

It is my understanding that you will, using the notes and tapes from our February meeting in the Administration Building, proceed to make two versions of the Arboretum Movie: (1) Adhering to Fran Eward's script, and using segments from both your movie and Charley's (as indicated in your script and tape) you will make what will essentially be a brand new treatment of the movie. You have said that you have additional sound made at the Arb but not used previously which will fit in, and you may also use some scenes of yours previously held out. (2) The second film which you will bring when you come down next time - I understand you will bring both films - will be a treatment as you envision it, without the use of running commentary, with emphases, etc. where your judgment says they should be - in other words, a more nearly finished product made according to your own best lights.

I think we all thought that after the staff has viewed both movies, a panel of impartial judges should be assembled to comment on the merits of each.

My understanding is that we will pay you for your time at the same rate we have been paying, for your work on the "Eward" version. The work on the "Woodfin" version will be done on your own time. However, the Foundation will pay necessary expenses in connection with getting both versions in such condition that they may be brought down here for viewing.

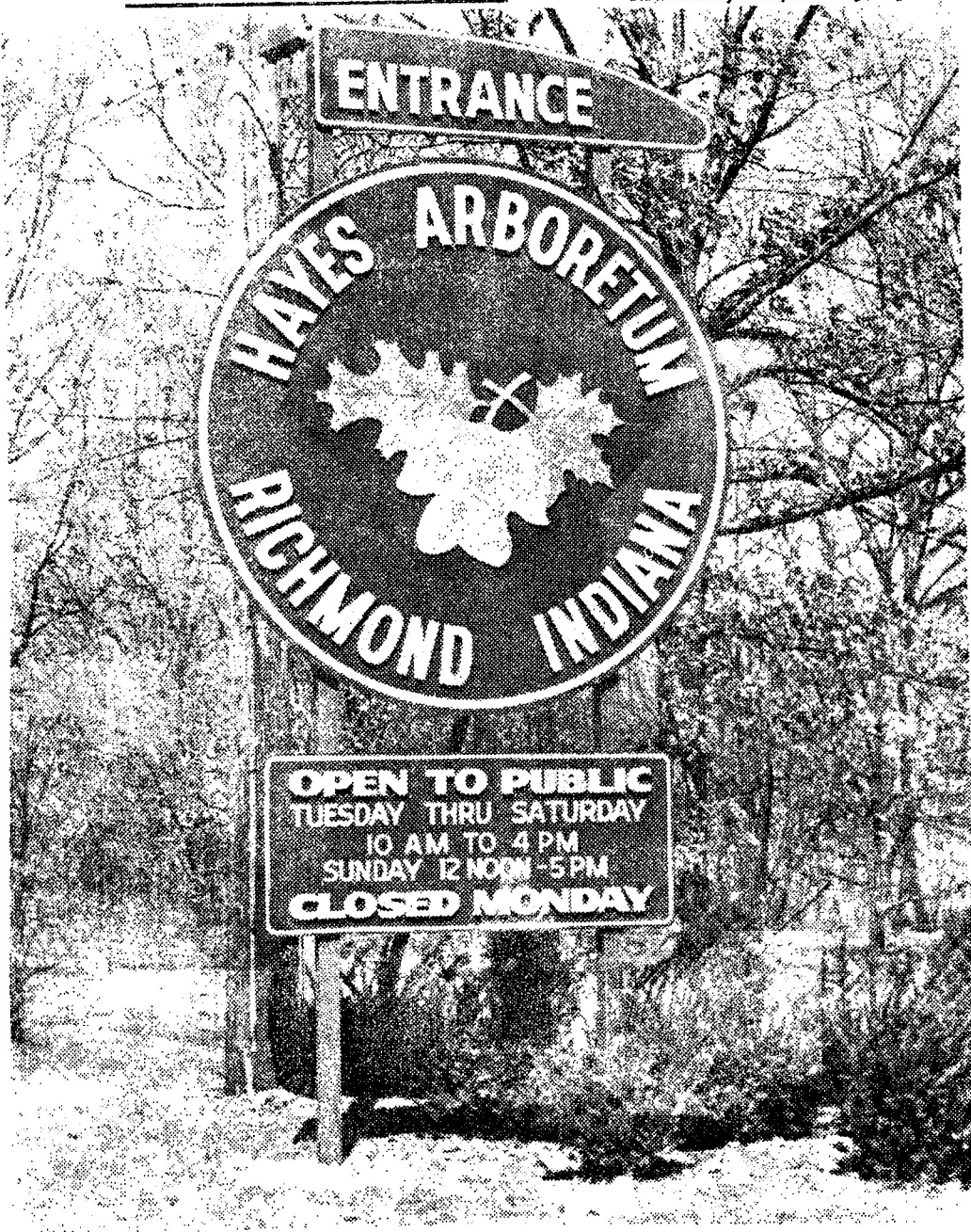
I'm doing this at home, Lesley (sniffles - cough - aches etc.) but I will try to get it off to you as soon as I have checked it with Charlie & Fran Eward. Will send you a copy to be signed & returned to me, too. Best to Perry --  
BEH-self *Brice E. Hayes* Brice E. Hayes, Pres. .73

# *An Arboretum How important to your community?*

*These representative press clippings (from the first 10 months of 1972) show how the Hayes Arboretum is serving the citizens of the Richmond, Indiana area.*

## THE PALLADIUM-ITEM

Richmond, Ind., Sunday, April 9, 1972



This new sign has been erected at the entrance to the Hayes Regional Arboretum to greet visitors coming through the main entrance off Elks Road. The background is deep brown with yellow lettering.

Palladium-Item  
Photos

Hayes Regional Arboretum, 300 acres of rolling woodland and open area, is located along U. S. Highway 40 at the east edge of Richmond, Indiana. The Arboretum is owned and operated by the Stanley W. Hayes Research Foundation, a non-profit corporation formed primarily to preserve the Arboretum and to enable it to serve the public. Included in the physical facilities used by the visitors are a large rustic nature center, the nature center annex, a field laboratory, and the administration building. Hayes house, the former home of Stanley W. Hayes, is now open to overnight guests of the Arboretum. The staff consists of ten full time employees, a few who work part time, and senior high school and college students who form the summer staff.

This digest of activities at Hayes Arboretum is presented for your information. It is not intended to be a statistical report, and when the number of people taking part in a program is given, it is for the purpose of indicating to you the scope of the activity.

You are welcome to visit the Arboretum or to write or call us regarding any of the programs mentioned in this report.

Hayes Regional Arboretum  
801 Elks Road  
Richmond, Indiana 47374  
Phone 317 962 3745

November 1972



# ACTIVITIES FOR ENTIRE COMMUNITY

The general public enjoys:

3.5 mile auto tour, hiking trails, nature center, woodland chapel, Arboretum tree garden, adult classes, guest lecturers, nature programs, films, and rambles.

## Outside Indianapolis Area

**Richmond-Hayes Arboretum**, 801 Eiks Road, Nature Center has exhibits of plants and animals, Indian lore and rocks, hiking trails and 3½-mile drive through arboretum; 10 a.m. to 4 p.m. Tuesday through Saturday; noon to 5 p.m. Sunday. Group tours by appointment 317-962-3745.

New hours--1:00 - 5:00 daily except Monday

## Visitors From New Zealand Like Local Arboretum Tour, Grid Game

Mr. and Mrs. Richard Beauchamp, Canterbury, New Zealand, have been visiting for the past week with Prof. and Mrs. Samuel H. Neff of South West First Street.

Mr. and Mrs. Beauchamp and Prof. and Mrs. Neff are friends of long standing, becoming acquainted when Prof. and Mrs. Neff were in New Zealand where

beautum under the guidance of Charles McGraw, arboretum director, as being "wonderful." She was especially impressed by the trees.

Another delightful experience here, she said, was attending the Richmond-Bend LaSalle

## Worship Services

### West Richmond Friends

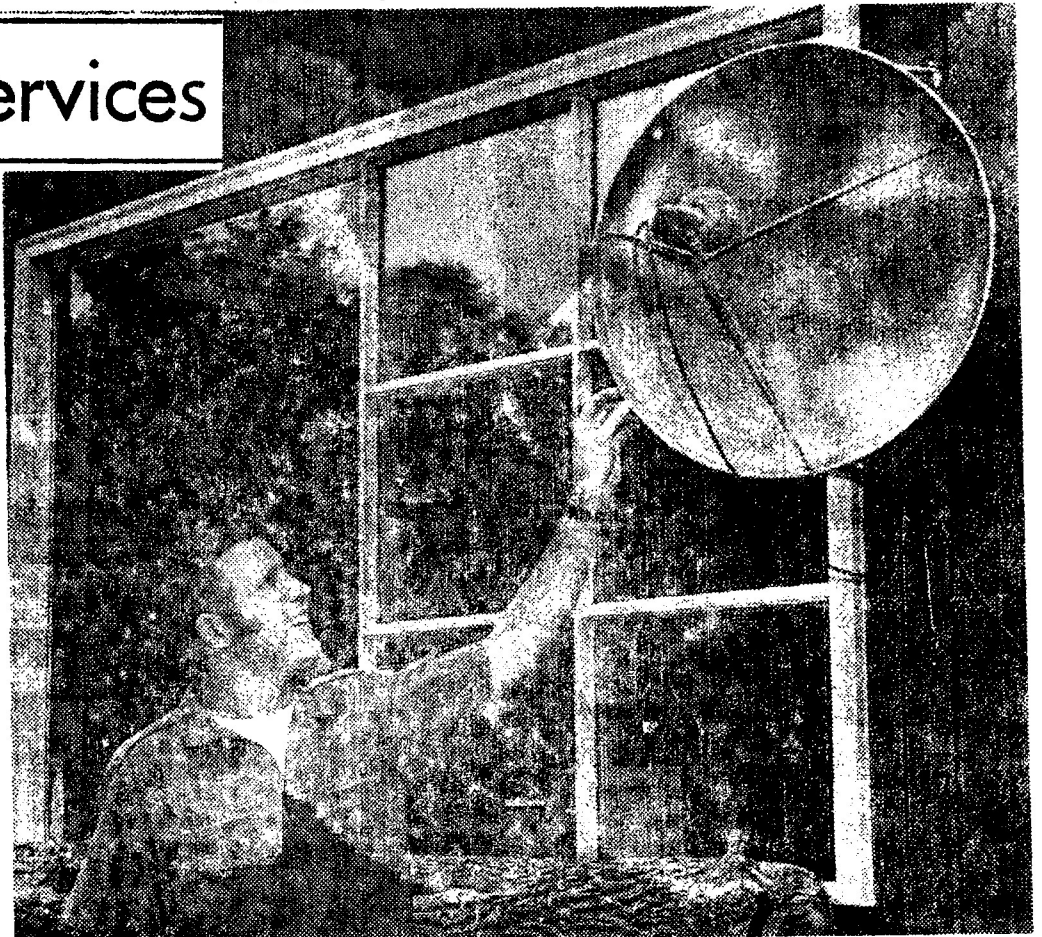
The 9:30 a.m. meeting for worship will be held at Hayes Arboretum Woodland Chapel or in case of inclement weather in the nature center. Children will take a hike under the leadership of Jeff Roller. D. Aldean Pitts will be pastoral leader. Lucille Beisner is organist.



Serene woodland hillside Chapel with a rustic pulpit and wooden bench seats, enjoyed by nearly 900 this year.



Bird watching station in the nature center



Adding to the enjoyment of the bird watching center is this highly-directional antenna which receives bird calls which are then transmitted

inside the nature center. The log bird feeder behind Hendricks attracts birds and animals living in the arboretum woods.

## 2 Arboretum Classes Still Are Open

Of the three adult classes being offered this autumn by Hayes Arboretum, there remain openings in two: "Lapidary Techniques" and "Black and White Photography Darkroom Techniques." Each begins Wednesday evening, Oct. 11.

"Christmas Crafts From Nature" has been filled.

Five more persons may be accepted in the lapidary class which will be taught, as in the past, by M. Hinshaw of Winchester.

The class will meet in field laboratory and members will use the arbore equipment for cutting and polishing stones.

Darkroom techniques for developing and printing and white photograph have for its teacher, R. Rodgers of the Eastern College faculty, who has taught photography previously at the arboretum.

The photography class will meet in the laboratory nature center and darkroom facilities there.

Both classes will meet on six consecutive Wednesday evenings. Persons interested in registering for either should obtain application from the administration building at the arboretum.



*Adult Classes*

*10,000 adults use the  
Arboretum each year.*

*Sunday nature programs*



## Hayes Arboretum To Show Nature Movies Sunday

Two movies will be presented Sunday in the second of the autumn series of free nature movies and nature rambles at Hayes Arboretum.

"New Horizons for Wood," a New York College of Forestry film, will show the structure of wood under the electron microscope, vibration patterns of wood panels, a modern experimental sawmill, wood decay prevention, veneer and plywood production, wood drying and the action of woodworking machines.

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## Trained Naturalists Ready For Visitors To Arboretum



Elaine Gandolph, senior naturalist at Hayes Arboretum, is shown here on a nature trail. She, along with resident naturalist Don Hendricks and three student naturalists,

Bob Waltz, Denise Bostick and Gregg Godsey, share duties on a full time basis as tour guides and Nature Center guides. (Palladium-Item Photo)

*Trained naturalists assist  
with programs and guide the  
public.*

# Leave Baby Animals Alone, They'll Make It OK

As summer approaches, the chances of finding "orphan" animals increases. This time of year the question most frequently asked of the naturalists at Hayes Arboretum is, "I found a baby animal without its mother. What do I feed it?"

What should you do if you find a baby bird, a young raccoon or any animal too small to take care of itself? First, you are required by law to have a permit to pick up more wild animals.

Second, leave the animal where it is or move it to a safe place like tree or bush. Third, remove any dogs, animals, such as cats or dogs, from the area to insure its safety.

Animals have enough faith in

animal instincts to leave it there. You are not helping them by putting them into your hands to be kept.

more easily and better than humans.

Since adult animals are primarily concerned with gathering food for their young, the young will normally be found near their parents. Animals are not their young's director.

"Young animals need constant care from their mothers and almost endless feeding and grooming. We, as humans, can't offer them the proper care they need. If the animals do manage to survive the feedings, who will train them to avoid people who might harm them? Who teaches them where and how to find food?"

"If they fall into the category of 'orphan' animals, who try to raise them when the mother is dead?"

# What Makes Leaves Turn? Several Things, But Not Frost

What makes the leaves turn color in the autumn?

This has been a long asked question with the answers dotted with some "old wives' tales" or just a fanciful attribution to Jack Frost.

The question was posed to Charles McGraw, director of Hayes Arboretum and brought some informative answers:

"The fall color change is

due to a series of factors. The primary cause is the shortening of days. With less sunlight and cooler weather, less chlorophyll is produced in the leaf.

"There is also a decrease in the production of the hormone, auxin, which permits the formation of corky layer of cells known as abscission or separation cells. "These cells form where the leaf stem joins the branch layer is

blues and purples, as in the ash, plum, dogwood and gum. If the leaf material is acid, a red coloration results as is found in maples, sumacs and even the skins of apples.

"There may be variation from one cell to another in the chemistry of a single leaf. This accounts for multicolored leaves.

"Tannis is a strong astringent that gives the rich coloration to oak and hickory leaves. It is the brown color that succeeds all other colors and is not destroyed, thus, the brown of leaves remains."

"We said he believes in more color this last year."

"I found that the September 'saved the trees' and August dried out that the trees heavier than and 'it looks color is on the

# Arboretum "Listening Sessions" Set On Wild Land Area System

What's your idea about how the National Forests in the East can help meet the needs of people as the National Wilderness Preservation System does in the western United States?

Any interested citizen is invited to contribute his ideas at two "listening sessions" to be held Tuesday at the Hayes Arboretum. Two sessions are scheduled for the convenience of those wishing to attend: one at 1 p.m. and the other at 7 p.m.

The Tuesday listening periods are for Indiana and Ohio residents and will be held in the nature center at the arboretum.

Arboretum.

The invitation for people to "speak their piece" about a wild land area system in the East comes from Donald S. Girton, forest supervisor, Wayne-Hoosier National Forest of the United States Forest Service.

Girton points out that proposed legislation has been introduced in both the United States House of Representatives and the United States Senate to establish a wild land area system.

Needed are the ideas of people about what areas would be eligible and how they should be managed.

Much of the National Forest Land in the eastern part of the country shows evidence of past use by man and does not meet the tests of the previous 1964 Wilderness Act.

In February, former Chief

of the Forest Service Edward P. Cliff issued a call for public comment asking for ideas on the manner in which such a system should be established. The comments received brought a wide range of ideas from a conservation-minded public.

Before making firm recommendations to the chief of the Forest Service, the Wayne-Hoosier National Forest supervisor, Girton, is asking for additional comments on alternatives for classifying and protecting these wild land areas.

The deadline for comments is July 26 of this year. Those attending Tuesday's listening sessions may submit ideas orally or in writing. And, those unable to attend may send suggestions to Donald S. Girton, Forest Supervisor, 1615 J St., Bedford.

Host public service meetings

# ORGANIZATIONS IN THE COMMUNITY

Organizations which meet regularly at the Arboretum

*Richmond Photographic Society*

## Ribbons, Awards Distributed In Photo Society Contests

The Richmond Photographic Society met Tuesday evening at the Nature Center of Hayes Arboretum. Wilmer Stratton announced Oct. 23 is the closing date for entries to the Indiana Photo Expo 1972 sponsored by Indianapolis Camera Club.

Ed Nusbaum distributed the ribbons and awards won at the Muncie Camera Club. Stratton announced the winners in the PSA print contest were Susan Castator, Wilmer

third, "Norwegian Folk Museum," and fifth, "Sunrise From Siler's Bald," Wilmer

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Mr. and Mrs. Walter Keach,  
Mr. and Mrs. Charles McGraw,  
Carrolle Markle,  
Kathleen Miller, Bob Moore.

*Audubon & Nature  
Club*

## Audubon Club Discusses Whitewater Conservancy

Floyd Howard of Liberty spoke on water conservation at a meeting of Audubon and Nature Club Tuesday night at the Nature Center at Hayes Arboretum.

Howard is executive secretary of the Whitewater Conservancy District, organized in 1968 in parts of five counties to carry out a four-point program, he said.

Howard used slides to point out the four purposes of establishing a conservancy district

(1) flood control, (2) drainage, (3) wildlife preservation, and (4) recreation.

His slide talk showed how the conservancy works, and, he said, will continue to work to handle problems of flood control and drainage. He talked of planting bird seed, thus benefitting wildlife and how recreation could be made available by the construction of ponds. There was a question and answer period.

*SPUR--Society for  
the Preservation  
and Use of  
Resources*

## SPUR Will Concentrate Activities In Three Areas

At the regular meeting of the Society for the Preservation and Use of Resources board, it was decided that the group should narrow its scope and concentrate on three areas this year. These areas are land acquisition, a land use seminar, and the recycling activities.

This does not mean that other projects will be excluded entirely, however.

It is hoped that SPUR will be able to make a purchase of some land which is of environmental interest sometime this year. Before any purchase is made, all areas of biological or environmental interest will be studied by a group consisting of Von Alexander, Murvel Garner, Jim Joyner, and Jim Thorp.

*Eastern Indiana  
Gem and Geology  
Society*

## Rocks Swapped By Gem Society

The annual rock swap of the Eastern Indiana Gem and Geology Society was held Thursday night when members met at the Hayes Arboretum.

In addition, a film from Earlham College of the search and digging up of a mastodon near Rochester was shown. Bones of a beaver and those of other small animals of the area in which the mastodon was found were included in the film. Arrangements for the film were made by Kiffin

Gilbert, leader of the Junior Club.

A specimen of calcite from the Pugh quarry in Ohio was awarded to Gordon Britton as the attendance prize.

The next meeting will be July 6.

"Action," are to be in to Clarence Davis by Nov. 7. It was decided by the club to change the next meeting from Nov. 7 to Oct. 31. This meeting will be held in the annex of the Nature Center at Hayes Arboretum.

### Open Contest

The "Open" contest was judged by Dr. Carrolle Markle as follows:

Class B slides: first, "Greece Beauty," Jim Resh; second, "Pumpkins and Squash," and sixth, "Magical Glen Miller," Kathleen Miller; third, "Valley Stream," Mabelle Snow; fourth, "Lunch Time," Clarence Davis, and fifth, "Reflections," Kiffin Gilbert.

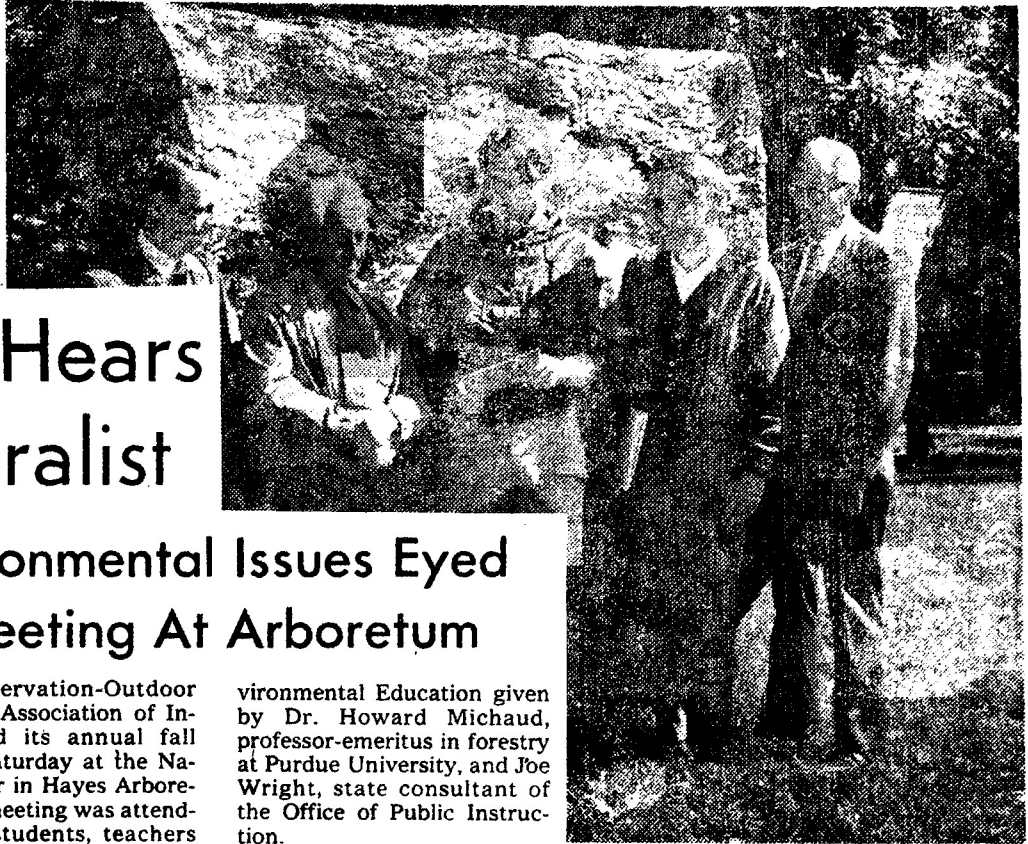
Class A slides: first, "Low Tide," Ed Nusbaum; second, "Red Clover," Anna Straw;

Other groups and organizations enjoy Arboretum services

## State Chapter Of Nature Conservancy At Arboretum To Discuss Weaver Woods

The Hayes Arboretum was host Saturday to the spring meeting of the Indiana chapter of The Nature Conservancy. High on the agenda of the day's business was discussion of how Weaver Woods near Richmond may be preserved.

Laz Weaver and his sister saved the valuable woodland and are planning to



## ABWA Club Hears Hayes Naturalist

A baseball theme was carried out in the table decorations when the Hoosier Hundred chapter of the American Business Women's Association met Tuesday evening at the White Kitchen.

Baseball banners, bubble gum baseballs and likenesses of players enlivened the tables.

Speaker for the evening was Miss Elaine Gandolph, senior naturalist at the Hayes Arboretum and a member of the chapter, who said the arboretum is a 300-acre facility, 40 acres of which have not been cleared. There are many facilities for the public, such as hiking and auto trails, summer ramblers, summer children.

Miss film sh What species of birds winter the arbore and in what numbers and to be how does the local "bird population" compare with other animal areas? there. James Cope, ornithologist, re-the de to the Hayes Arboretum turning staff recently an analysis based beauty on a study of the annual Christmas bird count sponsored by the National Audubon Society.

the off The recent local count on and St Dec. 27 was the twenty-fifth annual speaker. She answers the phone, books all moves,

## Environmental Issues Eyed In Meeting At Arboretum

The Conservation-Outdoor Education Association of Indiana held its annual fall meeting Saturday at the Nature Center in Hayes Arboretum. The meeting was attended by 32 students, teachers and professors from schools and universities around the state.

The morning program, presented by the Arboretum staff, centered around the theme "The Role of a Community Environmental

Environmental Education given by Dr. Howard Michaud, professor-emeritus in forestry at Purdue University, and Joe Wright, state consultant of the Office of Public Instruction.

The state plan is to be developed by a task force of 21 members which has been appointed by State Superintendent of Public Instruction John J. Loughlin.

The task force seeks answers to the following

meeting; Dr. Douglas Knudson, department of forestry, Purdue University; Fred Meyer, Indianapolis, editor the newsletter, and Charles F. McLaw arboretum host. (Palladium-

Photo)

## Analysis Of Christmas Bird Count

What species of birds winter the arbore and in what numbers and to be how does the local "bird population" compare with other animal areas?

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carried out in this area and the seventy-second national bird count. In the 25-year period, local takers of the bird census have reported seeing 94 species with an average of 44 yearly. This year they reported 51 species.

In the state, the highest total number of species spotted was 116 in 1956.

This year, eight species were seen locally in the largest numbers of the quarter-century count. They were: grackle, 270; blue jays, 85; red-winged blackbirds, 27; great-horned owl, 8; fox sparrow, 3; brown creeper,

189, 1965; titmouse, 101, 1954 and 1965; white-crested nuthatch, 65, 1961; Carolina wren, 40, 1958 and 1967; starling, 182, 1960; house sparrow, 963, 1965; cardinal, 218, 1970; goldfinch, 178, 1965; tree sparrow, 520, 1952; song sparrow, 163, 1904.

Frank M. Chapman, ornithologist at the American Museum of Natural History, started the national Christmas bird count in 1900. That year 25 counts were made by 27 people. In 1970, counts were held in 903 areas of the United States and Canada with 16,657 people taking part.

cies was seen last year at Nome, Alaska, where eight people, reporting from 9 a.m. until 2:30 p.m. in 4 degrees below zero weather, saw 67 birds including willow ptarmigan, ravens and McKay's bunting.

Nationally, in 1970, the four species seen in the greatest abundance were: starlings, 71,192; house sparrows, 17,604; crows, 3,050, and cardinals, 2,934.



# ACTIVITIES BENEFITING YOUTH

More than 11,000 children study at the Arboretum each year.

## Visit Arboretum

For the last full month of school, more than 2,000 school children and Scouts enjoyed naturalist-led hikes at the Hayes Arboretum, a recent report from the naturalists states. Of the 53 groups taking the informal study in May at the arboretum, the largest number, ten, were second-graders. Richmond schools stepped up their percentage of attendance with 40 per cent of those attending. Another 40 per cent came from other Indiana schools, and 20 per cent from Ohio.

## Arboretum Adds Microscopes For Upcoming "Insects" Course



## 135 Sign For Arboretum Classes In Nature Study

Hayes Arboretum was a busy place Sunday as a record 135 registrations were completed for summer nature study classes and 400 added visitors enjoyed the spring-time beauty.

Visitors drove the tour route to enjoy the redbud at its peak but not flowering so abundantly as in previous years because of adverse weather conditions. Those taking to the nature trails were rewarded with the pleasure of seeing the woods carpeted with spring wildflowers.

Registration for the summer classes for children and young people went smoothly, Charles F. McGraw, arboretum director, said Monday, and some classes are closed to further enrollment. These include the first two sessions of nature lore for second and third graders and "Explorecology I" which is full and has a waiting list.

There is one opening only in "Gardencraft" and "Reptiles and Amphibians."

ing vacancies will be filled in the order applications are received.

The July and August "Nature Lore" sections have openings as do these classes for fourth, fifth and sixth graders: "Let's Look at Birds" (10); "Our Neighbors, the Mammals" (7); "Creatures of the Water" (7); "Discovering Animal Homes" (5); "Nature Crafts" (5), and "Interesting Insects" (12).

For the student of junior and senior high school age there remain openings in: "Identifying Trees and Shrubs for Fun"; "Weather Observing and Predicting"; "The Challenge of Research," and "Explorecology II."

McGraw said there will be increasing spring beauty in the arboretum with the flowering dogwood expected within one or two weeks. There is never any charge to visit the arboretum which is open Tuesdays through Sundays.

**Summer Classes:**  
More than 200 children took the one and two week courses.

Instructor Elaine Gandolph points out some specimens in the insect class to Paul Fishback, 8, son of Mr. and Mrs. William Fishback, while Sarah

Dickey, 9, daughter of Mr. and Mrs. John Dickey, studies an insect's wing under a microscope. (Palladium-Item Photo)

# Arboretum Will Welcome Leaf Collectors This Fall

Hayes Arboretum will welcome leaf collectors as usual this autumn. Students may come in groups or as individuals, Brice E. Hayes, president of the Stanley W. Hayes Research Foundation, that operates the arboretum, said Saturday.

Hayes pointed out that a special "leaf-collecting" trail has been developed which is easily walked. On the ramble, students may collect as many as 25 varieties of leaves.

Students will be welcomed beginning Sept. 19, Hayes said. The president of the foundation stressed that the leaf collecting by students

was considered a part of the educational program carried on the year around by the arboretum. "We consider it a part of our public service," he added.

Students are requested to stop at either the Nature Center or the administration building for a leaflet "key" which is free. It shows the trail route indicating the trees from which leaves may be taken by student collectors.

The Hayes Arboretum is now closed to the general public until Sept. 15 for the annual vacations of staff maintenance of green buildings.

*Study of trees popular with children and teachers*

**Programs Available To Area Teachers At Arboretum**

With the resumption of school, a number of area, as well as local, teachers are taking advantage of Hayes Regional Arboretum as an outdoor classroom, Charles F. McGraw, director, says. "Working with teachers in outdoor education experiences is one of the main objectives of our outreach program," McGraw adds that teachers may select one of two types of learning programs: those they lead themselves with their class at the arboretum, or a "naturalist-led" program. The first step in both is for the teacher to telephone the arboretum between the hours of 1 and 5 p.m. Tuesday through Saturday, and schedule a tentative time for the class visit. If naturalists are to provide a program, teachers are requested to arrange a personal previsit conference with the naturalists, five or more days in advance of the class visit. Purpose of this conference with the naturalists is to set up objectives for the class field trip, help correlate the arboretum experience with material the class is studying and allow the teacher time to prepare the students for what they will be seeing and hearing. Naturalist-led programs are limited to not more than 30 students per period and there should be enough adults along to provide one for each 15 class members, naturalists request. Teacher-led programs usually call for a brief visit at the Nature Center and a short orientation by a staff member. Previsit conferences with naturalist are not required but wish a helping hand. Schools may schedule naturalist-led groups 9-10:15 a.m. Tuesday, Wednesday, Thursday, or Friday; 10:30-11:45 a.m. on the same days, or 1-2:15 p.m. Tuesday, Wednesday, or Thursday. Previsit naturalists' conferences may be scheduled from 2:30-4:30 p.m. Tuesday, Wednesday or Thursday. Both McGraw and Jack Hart, director of extended services, stress that a teacher wishing assistance in the school grounds, or at the arboretum, should call the arboretum to call the arboretum. In September, the school is scheduled for the school year.

**School Groups:**  
Eleven class periods a week are used by local schools.

*Special trail available for scout use*

## Cub Scout Pack Will Plant Trees

Dens in Cub Scout Pack 11 will plant trees Saturday.

The pack, composed of four dens, with approximately 32 boys, will plant trees made available by Hayes Arboretum.

Many of the trees will be planted on the school grounds of Joseph Moore School.

The pack will meet Tuesday, May 9, at the Hayes Arboretum where a nature hike will be held.

# Teacher training Teachers Given Tips On How To Interest Students In Outdoors



←  
Environmental  
education courses--  
graduate credit for  
teachers

A cooperative  
program with  
Ball State  
University



Some of the teachers attending the environmental education graduate credit sessions at the arboretum are, in front, Ta Rayle, left, Northeastern W; Clarena Allen, Rose Ham

"We received the kind of training we didn't get in college. It was fun learning and we got many tips on how to interest our students in exciting outdoor experiences."

That was the reaction of 28 teachers who took part recently in three environmental education graduate credit sessions offered in Richmond by Ball State University's Natural Resources Institute.

Instructors for the local sessions were Jessie Turner and Jack Hart, developers of the SEE system of education. (System for Ecological Education)

The week-end graduate sessions included three Friday evening and Saturday programs, the first centered at the Municipal Building and the remaining two being held at the Hayes Arboretum.

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## Learning Total Environment Concept

Local and area teachers taking a Ball State environmental education course being taught at Hayes Arboretum this summer visited the Wayne County Historical Museum Friday. Don Carter, left, a museum guide, shows an old log schoolhouse on the museum grounds to Centerville High School teacher Dennis Stephen; Mrs. Jessie Turner, instructor for the course; Mrs. Dorothy Bloomfield, and Wilson Bryan, Charles Elementary School teachers. The museum trip was designed to show the teachers how community resources can be used in teaching the total concept of environment. (Palladium-Item Photo)



# Local, Area Teachers To Be Active At Annual ISTA Conference Nov. 2-3

A number of Richmond and area teachers will assume special responsibilities during the Nov. 2-3 Indiana State Teachers Association (ISTA) conference on instruction, according to the newly published program book.

The one hundred and nineteenth annual affair, which will mean two days' vacation for pupils, will be held simultaneously at Evansville, Fort Wayne, Hammond, Jeffersonville, South Bend, Indianapolis and Muncie, with the latter two sites drawing the most teachers in this several-county area.

Joe Glowaki of the Fayette County School Corp., Connersville, is vice chairman of the Indiana Association of School Broadcasters program that Friday in Indianapolis.

Anne Cook of Centerville-Abington Community Schools is Indianapolis chairman of an outdoor education session the same morning at Hayes Arboretum.

Carl Fairview here, present C meeting Shanks teacher School session Class Handic

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Charles McGraw, arboretum, director, kneeling, points out the beauty in of the split rail walnut fence to graduate students, standing from left, Jeff Voigt, Danville, Ill., con-

servationist; Ira Giese, Wisconsin teacher and naturalist, and to their professor, Dr. Howard E. Weaver. (Palladium-Item Photo)

## Arboretum Is "Must" To See For Illinois University Class

A graduate class in outdoor education from the University of Illinois voted unanimously to make the Hayes Arboretum the focus for its annual spring field trip.

Dr. Howard E. Weaver, associate professor of recreation and park administration with emphasis on outdoor education, from the Champaign-Urbana campus, brought with him five students who are candidates for the master's degree.

They are weekend guests at Hayes House on the arboretum grounds. They also will

Weaver said Saturday. "We were all 'sold' on the idea of what the arboretum is doing by a recent Audubon lecturer, Tom Stirling, who called the arboretum 'a most innovative place that you must see.'"

Stirling spoke in Richmond recently and also was an arboretum guest.

Dr. Weaver, a native of Indianapolis, has his doctorate in nature and science education from Cornell University and was interested in hearing that the arboretum's founder, the late Stanley W. Hayes, was a graduate of Cornell.

Markesan, Wis., and summer time naturalist at Wisconsin state parks; Jeff Voigt, deputy director of the Vermillion County Conservation District, Danville, Ill.; Dan Isaacs; Cindy Blodgett, and Frank Masko.

The group heard the history and background of the arboretum from Charles McGraw, director, toured the arboretum and studied exhibits. They were briefed on the arboretum's outreaching education program by John Haddad, director of extended service.

They noted with interest 1

Inservice teacher training-- workshops, and individual help using the new SELF-EARTH ETHIC(SEE), a K-12 curriculum guide.

at Ball State University.

Also on the program will be Robert G. Jones, Winchester High School principal; Dale Braun, retired teacher, principal and superintendent at Winchester, and the Connersville Swing Choir directed by Shirley Binder.

Many college classes come to talk to the naturalists and the curriculum specialists.

Housing is available for small groups who want to stay overnight.

# SCIENCE AND RESEARCH

## Arboretum To Be Part Of 'World Bank' Of Plant Facts

Through the near-miraculous world of data processing and a new association between the Hayes Regional Arboretum and Plant Record Center, Lima, Pa., the local arboretum will be both contributing to and benefiting from a "world bank" of plant information.

Brice E. Hayes, president of the Stanley W. Hayes Research Foundation that operates the arboretum, and James Cope, coordinator of education and research, call the new computer operation "exciting in its possibilities for our own research and for the future of Hayes

tion. It is envisioned that later all the species of wild flowers and ferns in the arboretum may likewise be "computer catalogued."

3. The arboretum will be able to turn to the Plant Record Center for information concerning the age and vulnerability of certain of its specimens and when they may need to be replaced, and they may ask the record center where a certain species can be obtained.

Getting the arboretum garden records into a system compatible with the com-

belt is most productive of the valuable black walnut is not known, nor why trees grow at various rates:

Visitors to Hayes Arboretum may see in the lobby of the Nature Center two black walnut slabs. One is from a 74-year-old tree and the other from an 86-year-old tree, yet the younger is 10 times larger than its senior specimen.

Why? This is one of the answers black walnut research seeks to answer. The black walnut is a valuable tree since its wood has beauty, endurance and

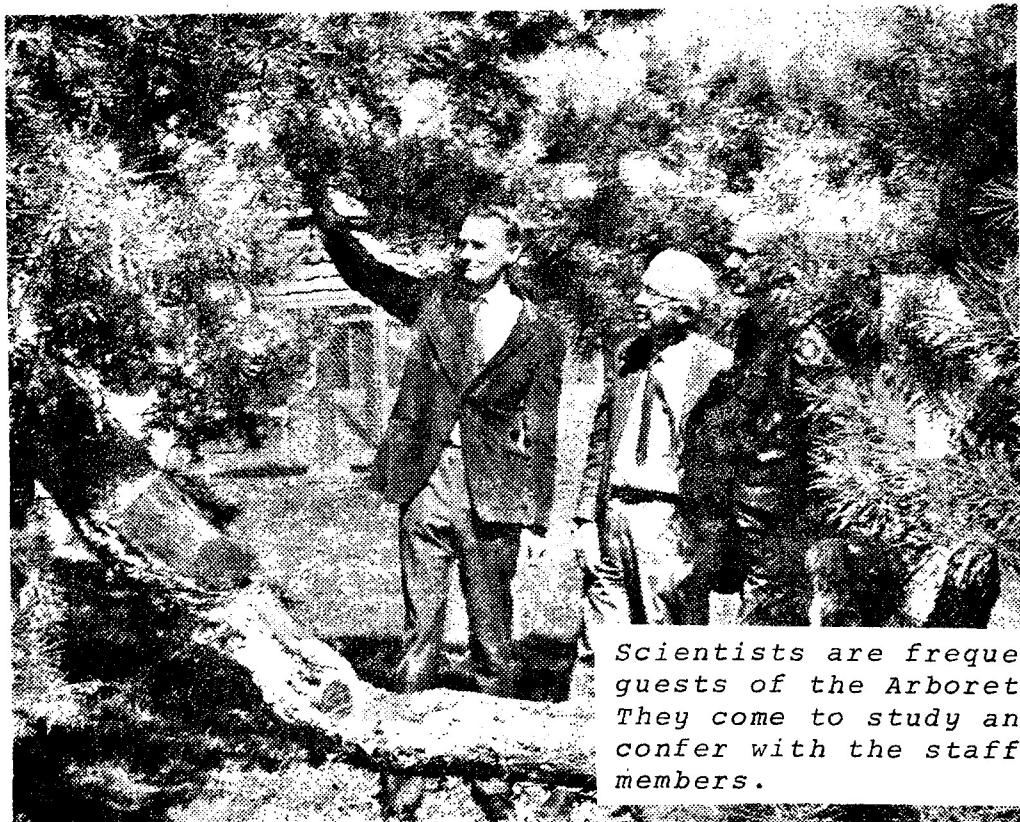
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## Illustrated Talk On Soil-Inhabiting Termites Given By Scientist At Arboretum

A distinguished Rhodesian soil scientist, the guest in Richmond for a few days of Hayes Arboretum and Dr. James Thorp, Thursday evening gave an arboretum audience an illustrated story of the fantastic influence of soil-inhabiting termites or "white ants."

Dr. J. Philip Watson, senior lecturer in soil science for 14 years at the University of Rhodesia, Salisbury, Rhodesia, was the honored guest and speaker for a dinner meeting in the arboretum's new nature center annex. In attendance were science teachers and students, representatives of the Whitewater Valley Conservancy, the Soil Conservation Service, and others.

Dr. Watson and Dr. Thorp have been "correspondence friends" for a number of years since Dr. Thorp, internationally recognized soil scientist, read some papers of Dr. Watson's on termite research. Dr. Watson is presently on sabbatical leave and he and Dr. Thorp will spend a



Dr. Watson, left, Dr. Thorp and Charles McGraw look at something Dr. Watson had never seen, one of the wonders of the arboretum, the 30-year-old Scotch pine, a natural "bonsai" de-

*Scientists are frequently guests of the Arboretum. They come to study and to confer with the staff members.*

veloped by wind and weight. It would be "a granddaddy" of the dwarfed bonsai trees and shrubs Japanese prune and train to grow into unusual shapes. (Palladium-Item Photo)

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# Grant Made To Hayes Foundation To Use For Beech Tree Research

Two Richmond advertising executives, Mike Patterson and Dick Smith of Patterson's, Inc., have made a \$1,000 grant to the Stanley W. Hayes Research Foundation, Inc., for research in the propagation and growing of American beech trees in the Richmond area.

Patterson said he had always had an interest in the beech tree, which is beautiful the year around, but that he and Smith in driving through Wayne County had found few young beech trees. He noted many "senior citizen" trees, but commented, that in counting some 40 beech trees in farm woodlands he noted only one young tree.

The president of Patterson's, Inc., said research and other creative activities:

Walnut  
American Beech  
Wildflowers  
Birds  
Insects  
Nature movies  
of landscape  
by such early  
painters as Bundy and Bak-  
er.

Those who walk the No. 1 nature trail at Hayes Arboretum,



Mike Patterson, left, president of Patterson's, Inc., hands a check to Charles McGraw, arboretum director. Standing around a seven-year-old beech tree in the arboretum grounds are Dick Smith, vice president of Pat-

terson's; James Cope, co-ordinator of research and education at the arboretum, and Brice Hayes, president of the Stanley W. Hayes Research Foundation. (Palladium-Item Photo)

## Arboretum Plans More Plantings

In keeping with the thought of Arbor Day and the planting of trees, shrubs and flowers, the Hayes Regional Arboretum has some 130 different species of trees and shrubs. When the late Stanley W. Hayes, founder of the Arboretum started the arboretum garden, there were some 147 species native to Wayne and surrounding counties planted there.

Now, because some of the species have died out, there are about 130 species, according to Charles H. McGraw, director of the Arboretum.

At the present time the staff at

the arboretum feels that a natural geographic unit would be more desirable than an area county one. Thus their thinking would include the whole of the Whitewater Valley or watershed. This may add a few more species to the arboretum lists, McGraw said.

With the aid of Dr. Carrolle Markle of Earlham College, the group is trying to determine what plant species should be added with this change.

A change in botanical nomenclature has changed some of the species. Where more than one

variety exists, these are all grouped together as one species.

McGraw said with the addition of the Whitewater Valley area, the number of trees and shrubs may again approach the 147 species that formerly existed.

New signs and labels describing the various species and a new map showing the location of the species are being developed by the staff.

Chestnut trees are being established with one of the most unusual trees in the arboretum being the Cucumbertree Magnolia.